

MOTOR AGE

Vol. LI
Number 7

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CHICAGO, FEBRUARY 17, 1927

Thirty-five Cents a Copy
Three Dollars a Year

**I'll defy any dealer to
park the Little Custom
Jordan on the main
street of his town—take
ten people up the demon-
stration hill or over the
roughest road—with-
out selling something.**

Edward S. Jordan

President
Jordan Motor Car Company, Inc.
Cleveland

HUPMOBILE



DEALERS MAKE MONEY



GEORGE M. MILLS

18 Years of Profitable Association with Hupmobile

Back in 1908, George M. Mills, enterprising carriage dealer of Noblesville, Indiana, read the first Hupmobile announcement in the Saturday Evening Post.

The Hupmobile "20" looked like the dependable kind of car Mr. Mills' customers wanted, and he wrote in for the dealer's contract. He sold twelve Model 20's in his first year. Inside of three years, his business showed a net profit of \$21,000.

The business of G. M. Mills & Sons has progressed steadily ever since—last year, gross sales were in excess of \$200,000. Mr. Mills is a firm believer in the Hupmobile product and the Hupmobile policies upon which he has built his success in 18 years of continuous selling.

*We will gladly forward details
of the Hupmobile contract to
interested dealers upon request.*

HUPP MOTOR CAR CORPORATION
DETROIT, MICHIGAN

HUPMOBILE

EIGHTS & SIXES

Noblesville, Indiana, has a population of approximately 5,500. Perhaps your own location offers even greater opportunities. Any dealer interested in reports from Hupmobile dealers in his own vicinity may secure this information by writing the factory.

Keep Ahead of Your Market

If there is any one thing that is smart in automobile merchandising, it is having a product to sell that is six months or more ahead of competition.

That's just what the Moon dealer has as the background of his franchise.

Last summer Moon came out with the first really fine car of the small, low, speedy, comfortable type—the 6-60. It was the forerunner of the more expensive cars of indi-

vidual style that, as you know, were the new sensation of the recent automobile shows. The 6-60 is still the outstanding modern type of high-quality small car selling at a very moderate price. There is nothing else on the market in its particular class. / / Get in line with the leaders. Find out the opportunities of this new style dictator / / / and its distinguished running mate, the Diana advanced straight Eight.



MOON

6-60

\$995 — \$1295

f. o. b. St. Louis

DIANA

Advanced Straight Eight

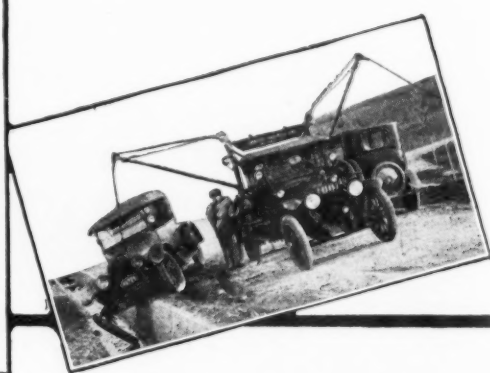
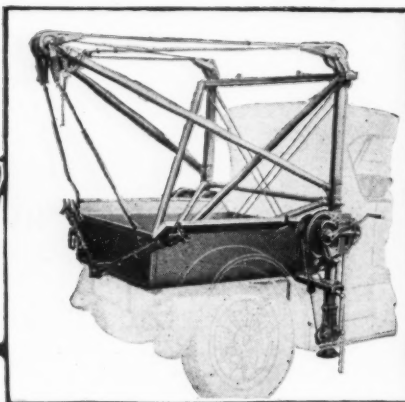
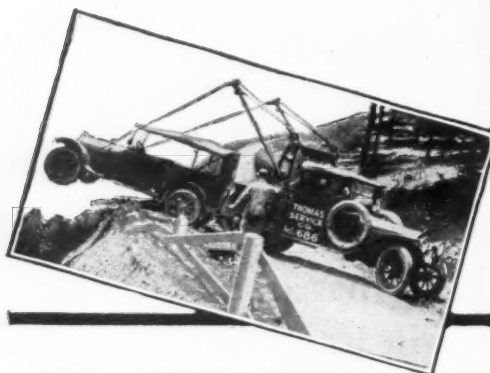
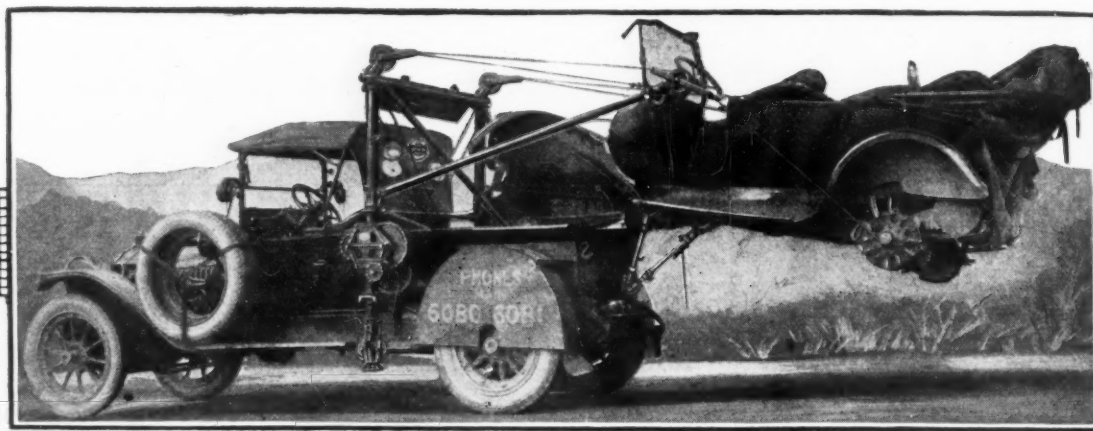
\$1795 — \$2195

f. o. b. St. Louis

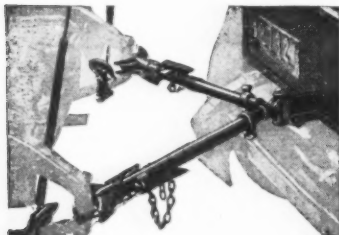
MOON

THE MOON MOTOR CAR COMPANY / / ST. LOUIS, U. S. A.

STEWART McDONALD, *President*



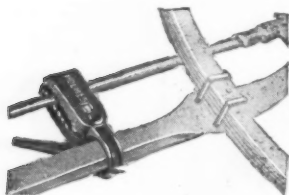
Holmes "V" Tow Bars



For towing wrecked cars suspended, the Improved Holmes "V" Bar is the latest development in towing equipment. It absolutely holds towed car in perfect alignment, and gives service car complete control over towed car. Furnished in two lengths, 36-inches to 48-inches; and 48-inches to 60-inches.

Price \$20.00 to \$22.00

Holmes Steering Gear Clamp



Holds steering gear rigid to front axle while towing car with rear end suspended from service car. Consists of duplicate clamping members with V shaped teeth arranged to grip parallel rod and a circular portion for clamping the axle, making it fit all car and truck axles. Saves use of one man.

Price \$3.00

IT PAYS TO HAVE THE BEST WRECKING EQUIPMENT

When you are called to handle wrecks like those illustrated above can your present equipment efficiently handle them without delay? Without blocking traffic? Straining service car or further damaging the wreck?

Efficiently handling wrecks is what makes the Holmes Wrecker No. 485 practically the unanimous choice of men who have had the greatest wrecking experience. They know that its powerful two speed hoisting mechanism and the extreme working height of its double adjustable booms enables one man to bring in the wreck, without delay, without blocking traffic and with no additional damage to the wrecked car. Two out-rigger legs carry the load directly to the ground.

The Holmes No. 485 has no equal as an effective advertising medium, as a creator of prestige and most of all, as a profit maker. Aren't you ready to put on better wrecking equipment? It will pay you and pay you big.

Order from your Jobber.

ERNEST HOLMES CO.
CHATTANOOGA TENN.

THE NEW HOLMES CANTILEVER JACK

"The One Jack for All Jobs." Lifting range from 6 to 17 inches with full 8 inch lift, handling all cars whether balloon equipped or otherwise. A new mechanical feature makes the reversing just as simple as the raising. No levers or pawls to operate. No load on handle when lowering, therefore all tendency of handle to fly back is eliminated. The maximum load is easily lowered with one hand. Simply pump handle up and down to raise and pump it up and down to lower. Stroke of handle is not limited—a whole stroke or any part may be taken regardless of position of handle.

It swings under wheels of raised car, has a frame clearance of 1 1/4 inches and its sturdy construction enables it to stand the roughest punishment.

PRICE, \$38.00



MOTOR AGE

VOL. II

Reg. U. S. Pat. Office

NO. 7

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*The New Low Prices
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both auto and radio—
will increase your sales—attract
new customers—who in turn will spread
the news of the great values you're giving. The
same high quality at substantially reduced prices.*

There's a Vesta Central near you

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2100 Indiana Avenue, Chicago, Illinois
*Automobile Batteries, Radio Batteries, Radio Tubes
Trickle Chargers, Radio "A" Power Units*

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Please have your Central Distributor near me present the:

☐ New Prices ☐ Vesta ☐ Radio Line ☐ Auto Battery Line

M.A. 2-17-27

Name

Address

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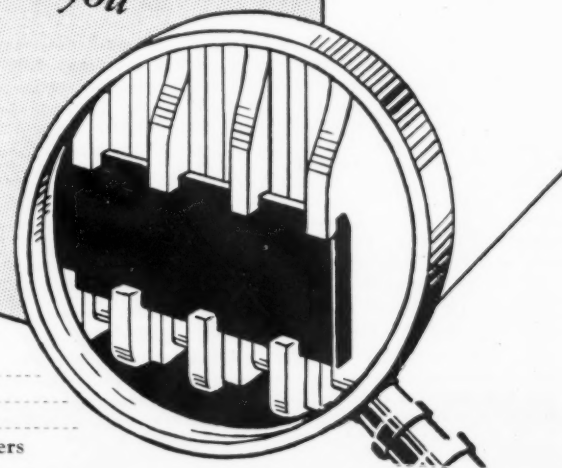
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Tune in Vesta Broadcasting Station WFKB, Chicago—217.3 Meters

The Isolator Patent—a Big Selling Feature

Keeping the plates locked apart—firmly in place—with isolator bars—top and bottom—on each side of each grid—minimizes plate buckling and short circuiting—the cause of fully 75% of battery trouble.

What a wonderful opportunity for a dealer to sell such a battery! The Vesta Isolator Battery is a business builder and profit maker—for no other battery has this feature—AND ALL BATTERIES SHOULD HAVE IT!



Studebaker Dealers

start their biggest year

STUDEBAKER—always a valuable and highly profitable franchise—now enters its greatest era of dealer prosperity with the advent of the new Erskine Six—the little aristocrat of motordom.

Studebaker dealers now have a price range from \$945 to \$2245—the Erskine at \$945 to \$995—the Studebaker line at \$1160 to \$2245. Both lines are Studebaker designed—a warrant of value and a guarantee of advanced engineering and mechanical excellence.

Picture the available market in your vicinity for a line of fine cars opening at the above low figure. The Erskine Six alone will open up opportunities of sales that have not been touched. Bodies by one of the world's greatest custom designers—Dietrich. Performance standards unapproached. The whole motor world admits it is the most original car in conception and development of a decade.

There is not a purse or a purpose that the combined Studebaker and Erskine lines do not fit. The values represented in both cars are supreme in the industry. Here are profits heaped on profits for you, if the franchise you want is still open. Wire for particulars.

S T U D E B A K E R



C. D. Gibson, Proprietor
Reliable Grinding Company,
Chicago Heights, Illinois

"Gill Products get and hold good customers for me. Gill Service is always one hundred per cent."

(Signed) C. D. GIBSON.

You too can get and hold good customers with Gill Products. Our merchandising gets them —our quality and service hold them.

Write for name of our nearest distributor.



Free! Gillometer

Gives the flat rate charge on six popular engine repair jobs covering 76 makes and models of cars. Tells piston ring size required. Wipes out estimating losses. Sent free — regardless of what rings you use. Write for yours today.

Gill Manufacturing Co.

8300 South Chicago Ave.

Chicago, Ill.

Gill

Products

Gill Interlocking Joint Rings
Servus Step-Cut Rings
Economy Oil Rings
Piston Pins
Pistons



There are Timken Bearings in the English Maudslay Coach. Timken plants in England and France supply Europe



ROBABLY the outstanding sensation in the history of anti-friction bearings is the adoption of Timken Tapered Roller Bearings for railroad cars. . . Incidentally Germany for some time has used Timkens in street cars and interurbans. . . . In self-propelled cars in this country Timkens are quite universally standard.

The greater thrust, shock, and radial capacity which enables Timken Tapered Roller Bearings to endure the pounding of steel wheels on steel rails also means unlimited wear resistance in Timken-equipped buses. That is why it is hard to find an American bus which does not have Timken Tapered Roller Bearings. And European engineers, traditionally conservative, also come to Timken for bearings.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

TIMKEN

Tapered

ROLLER BEARINGS



This new silent salesman will remind them to buy

Put up this attractive reminder. All you have to do is to pull the easel on the back into place—reminding your trade to buy WEED Chains.

This color display pictures the De Luxe and Regular WEED Chain bags—and shows how easy it is to put these chains on when instructions are followed.

AMERICAN CHAIN COMPANY, Inc.
BRIDGEPORT, CONNECTICUT

In Canada: Dominion Chain Company, Limited
Niagara Falls, Ontario

District Sales Offices: Boston Chicago New York
Philadelphia Pittsburgh San Francisco

**23 years of advertising
make it easier to sell
the most profitable of all accessories**

Merit . . . reputation . . . advertising . . . and still more advertising. Every month in the year, WEED advertising reaches every nook and corner of the country. Dealers everywhere benefit from sales made easier by nation-wide advertising in the leading magazines and newspapers.

Ask your jobber for WEED selling helps which are yours for the asking. Window and counter displays—newspaper mats—enlarged advertisements for your windows, walls or pillars—lithographed cutouts—everything to help you build up your winter profits.



"Ask them if they have WEED Chains in their cars"

WEED CHAINS

Made by the makers of WEED Bumpers and WEED Levelizers

Department of Commerce Fosters Move to Standard Sizes in Automotive Products

Will Ask All Branches of the Industry to Express Opinion on Reducing Styles and Sizes of Spark Plugs, Brake Lining, Pistons and Piston Rings

WASHINGTON, Feb. 14.—Plans for a survey of the automotive industry to ascertain the sentiment for adherence to standard sizes of spark plugs, brake linings, piston and piston ring oversizes, and roller bearings as recommended by the Society of Automotive Engineers has just been completed, and manufacturers, distributors and consumers, will be asked to indicate their interest in the program, according to E. W. Ely, assistant director, National Committee on Metals Utilization, Department of Commerce.

This action is being taken at the request of a conference of all interests held in Detroit on February 2 and 3 to discuss means for reducing avoidable waste in the automotive industry.

Standards to be submitted to the trade for adoption were approved by the conference in Detroit. They represent the best engineering thought in the automotive industry and have been arrived at by the Society of Automotive Engineers after a comprehensive study of present production practices and requirements, according to Mr. Ely.

It was pointed out at the conference in Detroit that the elimination of excess variety of styles, types, and sizes of spark plugs, brake linings, piston and piston ring oversizes, and roller bearings would result in more efficient production while increasing the utility of product.

In the case of brake linings, it was stated that a general adherence to the program of recommended standard sizes would result in a 40 per cent reduction in the present lists. Evidence of the existence of needless sizes in the other groups were pointed out.

As this program of simplification will bring its greatest value to the industry only as it is adopted and adhered to by a large majority, it was said by Mr. Ely that each recommendation must be accepted by producers, distributors, and consumers representing 80 per cent of the annual volume of the industry before the Department of Commerce can indicate its approval. It is believed that only such a proportion of acceptance will insure general application and adoption.

The department will ask all interests to record their acceptance of these recommendations at an early date in order that the effectiveness of these programs may be adequately determined.

The several suggestions made by the Detroit conference, as well as all suggestions regarding further reduction in variety and other constructive criticisms that the circularization of these recommendations may elicit from manufacturers, distributors, and users of these automotive items, will be referred to the Society of Automotive Engineers for its information and guidance in maintaining the serviceableness of these programs.

Money in Bank *Makes* Flat Rate

He Says It Increases the Efficiency of the Men, Enabling Them to Earn More, and That It Gives the Employer More Profit

By J. E. SMITH

THE flat rate of payment of wages for an automotive mechanic has a strong friend in Earnest Soderstrom, who lives at 310 Carl street, St. Paul, Minn., but who is in the employ of the Harvey E. Mack Co., Minneapolis, the distributor of Dodge Brothers cars and Graham Brothers trucks.

The shop is in an ideal situation about a mile from the main headquarters, but yet is in close touch with the main office. Some distance from the heart of the city, the shop surroundings are ideal, which contributes to the peace of mind and comfortable working conditions that are accentuated in this instance by the use for the last five years of the flat rate wage system, replacing the former old fashioned hourly basis of pay.

Mr. Soderstrom has been employed only 2½ years by the Mack people, consequently he has worked for this firm only on the flat rate plan. However, he never wants to work on the hourly wage basis.

One point this man makes is novel and rather outside the wage payment question. He is employed nine hours a day. But suppose he wants to do some work on his own car, which he utilizes getting back and forth from his home in the other Twin City. He puts it this way:

Has Bought a Home

"The fact interests me that almost any company with the flat rate system will let a man work on his own car before 5:30 o'clock; but on the hourly basis he would not be allowed to do a bit of work before closing time, and the fact that I can do it helps 'to beat the dickens.'"

"They say you have bought a house since you worked on a flat basis," it was suggested to Mr. Soderstrom.

"Well, I suppose that was common sense more than anything else," he smiled, "but it is a fact that I did live in an apartment furnished at \$40 a month, and now I have bought a lot and built a home. I have about \$2,600 in the house and lot and about \$1,000 in furniture and equipment. I have saved all I have since being on the flat rate."

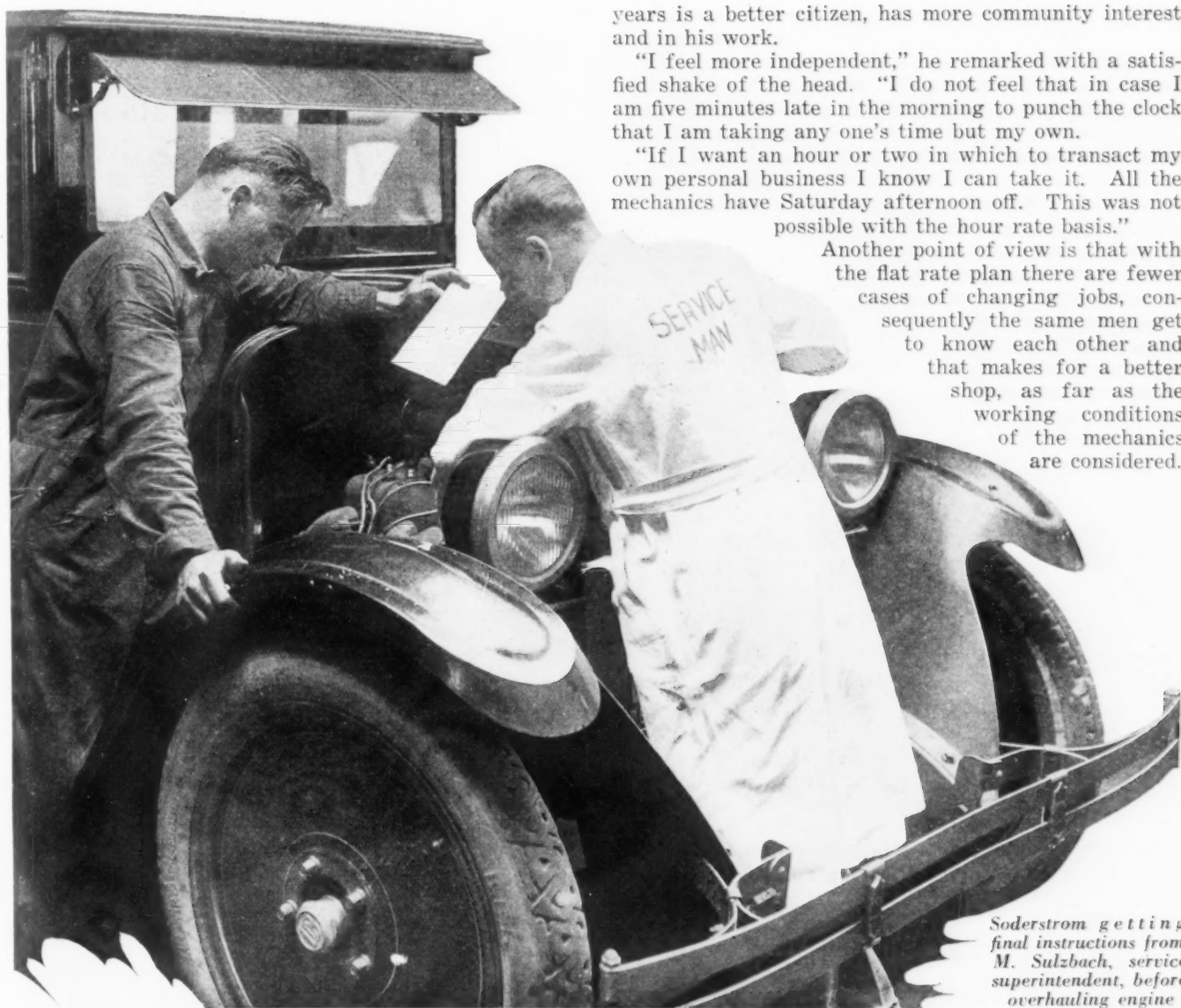


Soderstrom repairing steering head at his bench, on flat rate basis of wage. He is strong for the plan

Mr. Soderstrom says that he takes a great interest now in his work. He has to. He is a general mechanic, and he affirms that he does more now in the nine hours than ever before. In fact he hazarded that he could do more work than sometimes he used to do in 15 hours. He meditated a moment over this rather strong statement, then added this explanatory note:

"Under the flat rate a man has to hustle and not talk. We don't stand around waiting and talking. It is interesting to us as well as to the company that every moment is occupied with work. We save time on every car."

Earnest Soderstrom *Prefer* Wage Plan



Soderstrom getting final instructions from M. Sulzbach, service superintendent, before overhauling engine

Mr. Soderstrom summarizes his ideas about the value of the flat rate basis something like this:

Makes More Money

There is more money for him and the company. The average wage to the mechanic is increased \$5 per week and there is steady work. Before going to the Harvey E. Mack Co. he was earning 50 cents an hour and he knew his limit was not more than 65 cents for each hour, regardless of how long he worked in any one place. His work is therefore steadier and he is surer of his job.

Naturally a man who has been able to save out of his extra earnings under the new wage plan enough to buy a lot, build a house and furnish it in less than three

years is a better citizen, has more community interest and in his work.

"I feel more independent," he remarked with a satisfied shake of the head. "I do not feel that in case I am five minutes late in the morning to punch the clock that I am taking any one's time but my own.

"If I want an hour or two in which to transact my own personal business I know I can take it. All the mechanics have Saturday afternoon off. This was not possible with the hour rate basis."

Another point of view is that with the flat rate plan there are fewer cases of changing jobs, consequently the same men get to know each other and that makes for a better shop, as far as the working conditions of the mechanics are considered.

Recurring to the subject of his home, with which the interview began, Mr. Soderstrom said: "My house and lot are not all paid for."

Then hesitating briefly he added with a gleam of absolute confidence in his eyes: "But I know I can pay for them without doubt." And that was that.

A reading of this brief sketch discovers why at least one automotive mechanic working under the flat rate system of earning wages favors the plan and doesn't want to think of going back to the "old system."

And there is a lesson in this for the dealer or service shop operator who says flat rates and piece work payment of mechanics are not practicable. There are still some who say, "It can't be done." Well, it is being done, and here is only one of many examples that might be cited.

\$175,000



The main showroom extends across the 100 ft. of frontage and is 50 ft. deep. It is finished in fumed oak and buff walls and floors

The new structure housing the South Side Buick Auto Company is very imposing and one to be remembered



BUILT in the Spanish Mission style the new South Side Buick building, at the corner of Grand Boulevard and Winnebago streets, St. Louis, Mo., is a structure of which any city could be proud. Surmounting the southwest corner is a tower which gives the building its style and does much to place it in a class by itself.

The building fronts 100 ft. on Grand Boulevard and extends east 250 ft. on Winnebago street and has a service yard at the rear 65 ft. wide by 100 ft. long around which is a 20 ft. canopy for parking finished cars and for the protection of house and salesman's cars.

The main floor is divided into three sections 50 ft. by 100 ft. each. The front section housing the showroom and general offices. Back of this, opening from it facing the side street is the used car section, while the third or rear section is occupied by the service department. The manager's office is between the car entrance and exit, the rest of the space being used for quick service, adjustments and for storage.

On the second floor is installed the repair shop where every operation of major importance—including complete overhaul work—may be handled. The latest and most up-to-date labor-saving machinery and equipment has been installed in this shop—and many of these machines are designed especially for work on Buick cars.

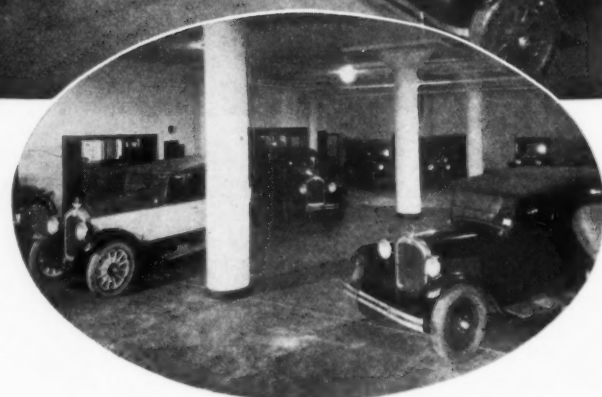
In addition to the repair shop, the second floor also houses a machine shop, parts department, wash rack and space for new car storage. Locker rooms and wash rooms—including shower baths—occupy one corner of the second floor.

A complete Duco plant for refinishing and touch-up work has been installed on the roof.

There are no ramps in the building—as the movement of cars between floors will be handled by an ele-



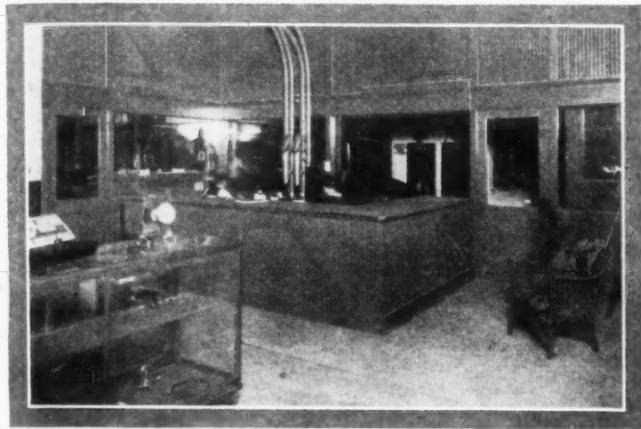
General outer office in main salesroom showing cashier's cage and private offices behind



The used car showroom is 50 ft. by 100 ft. and will accommodate 24 cars easily and 30 if necessary

Building for Buick

*New Building for South Side Buick Auto Company of St. Louis
a Thing of Beauty Outside, Housing Utility Within*



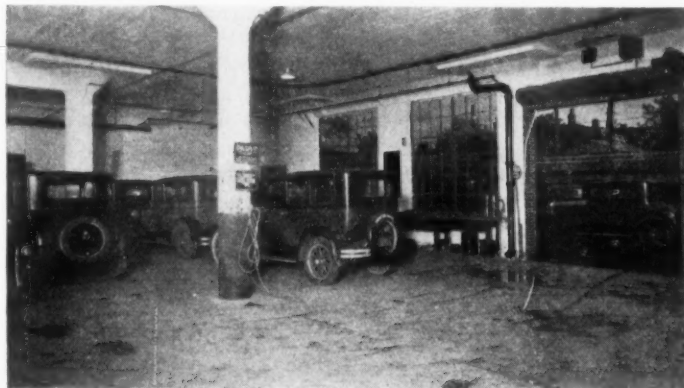
The service manager's office occupies a position between the service entrance and exit. Note pneumatic tube system

vator. This elevator also opens out on the roof as the roof has been finished so that if additional parking space is required for customers' cars or used cars, it can be utilized in this way.

The first floor offices are finished in fumed oak with all plaster work above the moulding, walls and ceiling finished in buff. The floors are covered with buff colored tile with patterns worked out in harmonious dark colors.

The new building represents an investment of approximately \$175,000 and provides about four times as much space as the quarters formerly occupied by this company.

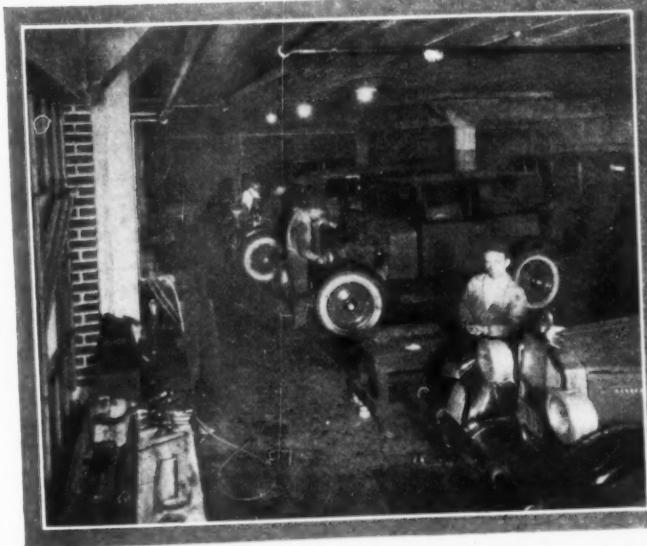
The South Side Buick Auto Company ranks well up among the first two or three retail Buick stores in St. Louis and is operated under the management of Charles Parks, who has been in charge of the business since October, 1924. The company employs a total of about 75 people, including 11 new car salesmen and 8 used car salesmen.



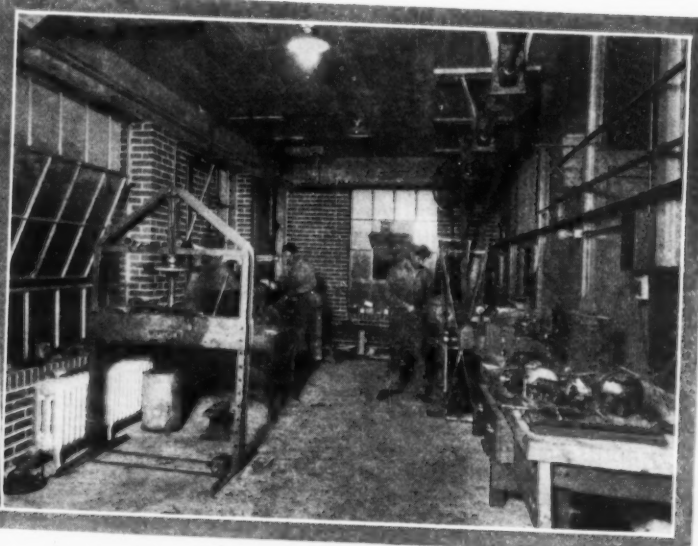
The quick service room at the rear of the building opens onto the parking yard which is seen at the left



New car storage is in a special room where the cars are kept under lock



The second floor repair shop is fully equipped with labor saving devices and has ample space



The machine shop in a corner of the shop floor is light and well ventilated

Cadillac Approves Parts Discount Plan

*Concession to Independent Garage Operator,
Which Has Been in Effect Several Months,
Is Successful, Officials Say*

By LEWIS DIBBLE

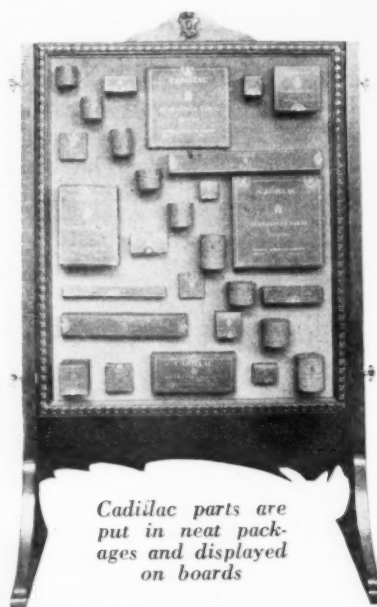
THE policy of revising the distribution of replacement parts, as announced in recent weeks by a number of automobile manufacturers, whereby attractive discounts are made available to independent garages, is proving a success both from the standpoint of increasing the replacement parts business of the manufacturer and its dealers and also in gaining the friendship of independent garage operators.

The Cadillac Motor Car Co., which was one of the first manufacturers to adopt the new distribution idea last March, on a world-wide basis, has had an excellent opportunity to observe the plan in operation, and, according to W. M. Warner, head of the parts division of Cadillac's service department, the company is more than satisfied with the results.

Since Cadillac inaugurated its discount plan, discount cards have been issued to more than 2,600 independent garage operators, and, according to Mr. Warner, results obtained from the very start have been most gratifying. Increases in the sale of replacement parts have been reported by many Cadillac distributors, some of whom have enjoyed a 50 per cent gain. While a certain proportion of this gain can probably be traced to the excellent business conditions which have prevailed throughout the automobile industry, the belief is held by both the distributors and executives of the company, that the discount has been largely responsible for the showing.

Practically all fast moving small parts sold by Cadillac are now being packaged in attractive black cartons which are designed both from the standpoint of providing attractive displays in the dealer showrooms and also to eliminate much unnecessary work which results in the handling of unpackaged parts.

"Cadillac Guaranteed Parts" is printed in gold on the packages along with the name and numbers of the parts contained therein. Every package carries either the familiar seal of Cadil-



*Cadillac parts are
put in neat pack-
ages and displayed
on boards*



This parts discount card in leather folder is furnished to the independent garage. With it goes a little book giving all Cadillac serial numbers

lac worked out in gold, red, blue and black on a background of green or a suitable label.

Besides urging Cadillac dealers to arrange displays of packaged replacement parts in their showrooms, the company is also making available for dealers and distributors, an attractive uniform display board which can be placed either on the showroom floor or in the dealer's window. From time to time the company will send photographs of packaged parts in attractive arrangements on the board, and suggest that the dealer work out a similar display for his showroom.

According to W. N. Lindberg of the parts department, who has had charge of the issuance of special discount privileges to independent garages, a discount of 25 per cent on guaranteed Cadillac parts is extended to such garages as, in the opinion of the Cadillac distributor or dealer and the Cadillac Motor Car Co., are so equipped and are of such caliber and personnel, that will warrant their servicing Cadillac automobiles.

Independent garages may obtain application blanks for the discount from Cadillac dealers or distributors.

After the company mails out the discount cards, the dealer or distributor through whom the application was obtained, will issue gratis to the independent garage, a lithographed sign 18 in. square displaying the Cadillac crest and the words "Guaranteed Cadillac Parts."

Application for discount privilege on Cadillac parts

Application for Privilege of Selling Genuine Cadillac Replacement Parts

Date..... 19.....

I herewith make application for the privilege of selling Genuine Cadillac Replacement Parts for cars sold by the Cadillac Motor Car Company, its Branches, Distributors or Dealers.

Name.....

Street..... City or Town..... Phone No.....

My garage comprises the following—

Showroom size.....

Repair Shop size.....

Stock Room size.....

Car Storage Accommodations.....

Car Repair Accommodations.....

I ordinarily employ..... mechanics

I service on an average..... Cadillac cars per day

I charge..... per hour

I use Flat Rate Charge to my customers..... (dollar)

I have the following tool equipment:

.....

The cars usually serviced in my garage are of the following makes:

.....

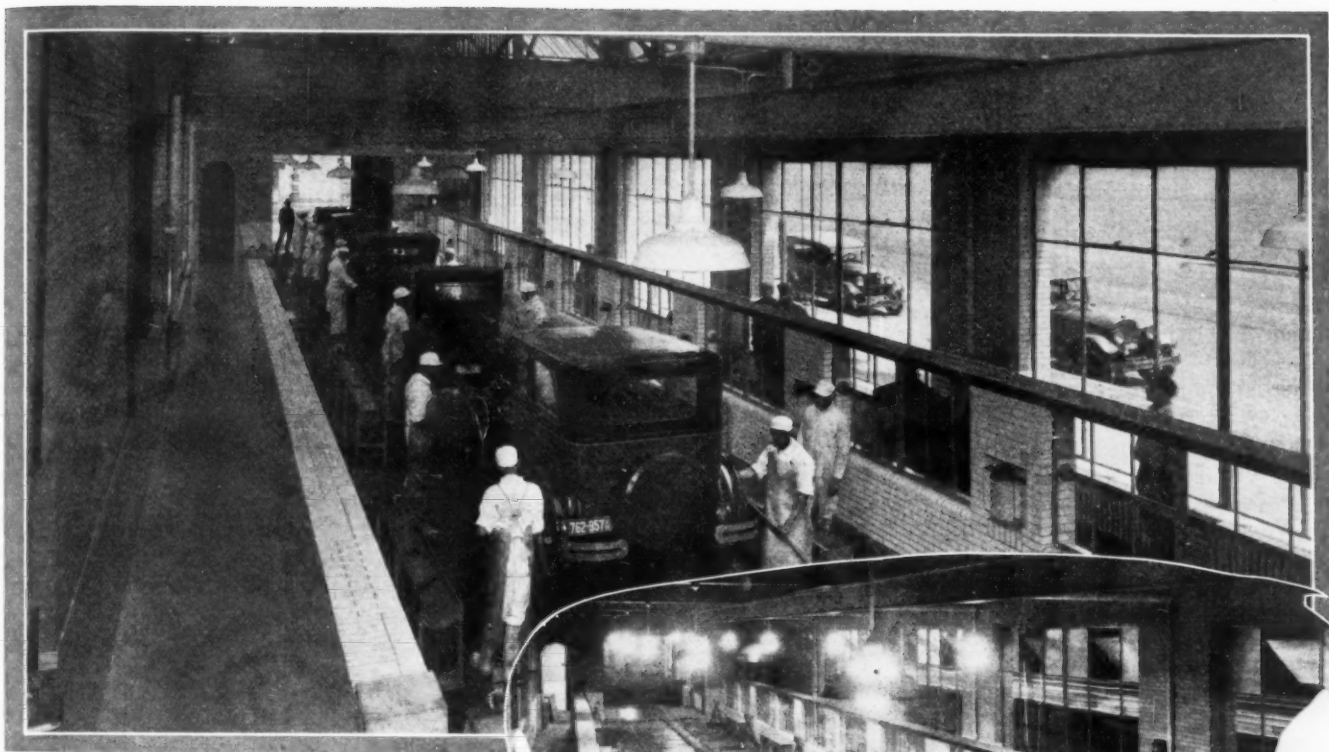
I am a direct dealer for the following makes of cars:

.....

I am a sub-dealer for the following makes of cars:

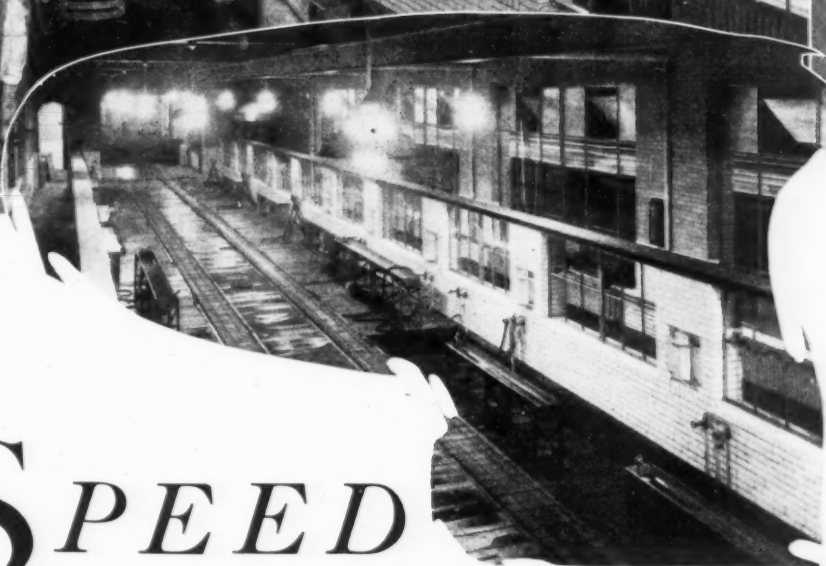
.....

I have an agreement similar to this with..... (Give details if any)



Above: The line of cars going through their bath at Cunningham laundry

Below: A night view of the Cunningham automobile laundry showing illumination that provides good light at all times



Here's *SPEED* In Car Washing

Six Minutes to Each Job Is the Record in Cunningham System in Chicago

A SPECIALIST who has found automobile laundering highly profitable and has perfected the method to the point of completely washing a car in six minutes is the Cunningham System of Auto Laundries, 6000 South Western avenue, Chicago. In this laundry 10 minutes per car is considered slow speed.

Photographs on this page show the continuous conveyor system used and the artificial lighting which permits night work equal to that done by day light.

The cars are first parked in a large parking space outside the building. The engine is covered to protect it from moisture and the dust blown out of the interior of the car with compressed air.

The car is then placed on a turntable facing the washing rack and started on its way. Jets of clear, cold water soak the dirt as the car passes on its way to the

attendants. At this time the top of the car is washed and chamoised dry. Four attendants now start on the wheels with a pressure spray of air and warm water. In order, the fenders, undergear, springs and axles are gone over with warm water and emulsified suds.

The remaining portions of the car are now washed while attendants clean the windows both inside and outside. After the car is chamoised it is inspected and delivered back to the owner.

Electric Welding School

A school for training men in electric arc welding is maintained at the Schenectady plant of the General Electric Co. There is no charge for instruction nor for materials used. Many mechanics are said to be taking advantage of this service. Additional details may be had by writing to the General Electric Co.

VIEWS ON VARIOUS TOPICS

Wants Greater Horsepower Efficiency

Connellsville, Pa.

To the Editor of MOTOR AGE:

I have read the communication in a recent issue of MOTOR AGE, from Esca Forgy, Shamrock, Tex., and in my humble opinion, he has certainly scored a ringer. While agreeing with your other correspondent in the same issue that the cars of today are infinitely better than those of even three years ago, the fact remains that not only have we never produced a small car in this country to compare with the cars Mr. Forgy mentions (outside, of course, of the racing cars) but that our other cars leave much to be desired in the way of power.

We are prone to let our patriotism run away with our judgment when we claim to be the most progressive nation in automotive matters. We excel in quantity production, but there the supremacy ends. As Mr. Forgy says, there is no small car built in the U. S. that produces real power and efficiency in comparison with its displacement. A car of the kind he would like to see produced would be a real automobile and should not be impossible for our engineers to design nor for our manufacturers to produce.

I suppose, if I were to express my views to a congregation of engineers, I would be soundly criticised, but nevertheless, I consider the majority of the American cars under-powered, in relation to the piston displacement of the engines. There are not over seven or eight engines built in this country which produce as much as .30 h.p. to the inch of displacement. A motor, in my opinion, is not properly designed if it does not produce up to this figure, and the very fact that there are a few makers which put out engines delivering from .30 to .35 h.p. to the inch shows that it is not by any means an impossible feat. I have always believed that if the public demanded more efficient engines for their size, they would be forthcoming, but the average car buyer is more concerned with silence, beauty, comfort and luxury in his car than he is with efficiency. All these are points which should concern him, but he could have efficiency in addition if he would demand it, as the seven or eight cars mentioned above do not suffer in a comparison with the other makes in these respects.

The general tendency in this country is to increase power by increasing the size of the motor. One of the higher priced cars which delivered very poor power output for its size recently came out with a new model with about one-third more power—and to get this power, they added 25 inches to the displacement of their motor. Did they really improve it much?

Horsepower is horsepower and weight is weight, no matter what the size of the car, and since our manufacturers have learned to build comfortable, beautiful and durable cars in the smaller sizes, why would it not be more desirable to have a 150 inch motor, producing 55 to 60 horsepower in a 2,000 pound chassis than to have a 288 inch motor, producing 75 to 80 horsepower, in a 4,000 pound chassis?

Possibly in the level sections of our country a little extra weight and a little lack of power are not such great disadvantages, but in sections like this one and in the mountain ranges of the Far West, I should think that a car such as Mr. Forgy advocates would be ideal.

Such a job would be very economical without sacrifice of performance.

Each year the two manufacturers who produce all our racing cars come out with motors, pigmies in size and giants in power, even more efficient than their former efforts. And all our papers and magazines comment on the effect of these cars on passenger car design. Yet this design is in no way manifest except with a very few makers. The others go right ahead giving us smooth, silent, and durable motors which produce about two-thirds the horsepower they ought to. As Mr. Forgy says, the Europeans snap up the benefits of proven racing practice like hot cakes and the results are plainly apparent in several of their very small, highly efficient motors.

I certainly regret that every manufacturer and every car user in this country cannot read and thoroughly digest the contents of Mr. Forgy's able communication.

Yours very truly,

R. W. McDONALD,

Olds-Fayette Motor Co.

Bureau of Standards Claims Savings to Public of Billion-a-Year

A saving of a billion dollars a year has been effected for the public, a large part of it for the automobile using public, through investigations of the United States Bureau of Standards, according to a statement on various activities of the Bureau just issued by Dr. Fay C. Brown, assistant director.

Among the savings pointed out by Dr. Brown are those on brake linings for automobiles. A standard wear-testing machine perfected at the Bureau, Dr. Brown states, has resulted in brake linings 20 times as good as the best of five years ago, and a saving of at least \$30,000,000 annually in their cost to the public.

Co-operation of the Bureau with rubber tire manufacturers, Dr. Brown states, brought the perfection of a testing apparatus for the relative merits of fabric and cord tires, as a result of which manufacturers have virtually removed fabric tires from the market. Because of the smaller horsepower necessary for propulsion of a cord-tire-equipped car, Dr. Brown estimates a saving of \$100,000,000 annually in gasoline consumption. In addition, standard tests worked out at the Bureau have done much to prolong the life of tires, the Bureau official says.

A.A.A. Sponsors National Campaign to Reduce Grade Crossings

The American Automobile Association has sponsored a national, concerted movement, to be inaugurated with the convening of 43 of the 48 state legislatures this winter, to reduce the number of grade crossing fatalities in the United States—fatalities which, according to an announcement by Thomas P. Henry, president of the A. A. A., numbered 10 per cent of all the fatalities in street and highway accidents last year. Much that could have been done to protect lives at grade crossings is not done because of lack of concerted action, Mr. Henry states. He believes the program which the A. A. A. now is mapping out will do much to minimize the evil.



A partly finished Ford steel body was displayed in the window, with posters on either side pointing out the best features



Big bold signs announced the addition of a new carburetion unit

How a Dealer Merchandises the Ford

Attractive Window Display Draws Many Persons in Detroit Sales Room

By LEWIS DIBBLE

PROSPECTIVE customers can be attracted to the Ford dealer's showroom by unique window displays. This was recently proved by Max O'Leary, prominent Ford dealer in Detroit.

Displays pointing out strong points in the body construction of the Ford car and enumerating recent improvements were arranged in the show windows with a result that the number of persons visiting the store to inspect the Ford line was greatly increased.

The display was opened several days after the Ford Motor Co. announced that it would not introduce any new models and is indicative of a trend on the part of Ford dealers to devote more time and thought on the idea of selling the present Ford Model T which has been described by the company as the best Model T which the Ford Motor Co. has ever produced.

According to H. E. Hallowell, general sales manager of the O'Leary organization, who arranged the displays, the results were more than satisfying. There was hardly a time but that passers-by did not pause to view the exhibit and many of them entered to inspect the showing more closely. Besides the special exhibit, various Ford models were also displayed on the sales floor.

To more clearly demonstrate to many of the visitors the advantages of the Ford steel body, Mr. Hallowell exhibited a Ford car, in the service station, which had been in a wreck and which showed the protection afforded the occupants as a result of the all steel construction.

Both front windows of the store were given over to the exhibit. In one was placed a skeleton Ford Tudor sedan body, finished in the polished metal and showing all the details of construction, while in the other window was an electric display demonstrating the working details of the carburetor manifold and vaporizer recently adopted as regular equipment on Ford cars.

Large signs calling attention to the exhibits and enumerating the many feature points in the display were placed on the window to attract the passer-by.

"BIG MILEAGE—NEW VAPORIZER" read large letters in the corner window which could be seen a considerable distance away. Below it was placed the electric device showing the working principles of the vaporizer, while down each side of the window were placed signs enumerating 7 advantages of the vaporizer. They follow: 1—High performance with low grade gasoline. 2—More speed. 3—Crankcase dilution eliminated. 4—Smoother operation at all times. 5—Less use of the choke. 6—Warms up fast in the coldest weather. 7—Relieves carbon trouble.

In the other window was the skeleton body mounted on supports so that it could be conveniently inspected by visitors. Across the top of the window was a large display reading: "LOOK! NEW FORD ALL-STEEL BODIES." On each side of the window were smaller signs entitled "FEATURES," and suggesting that the public ask about the body.

A total of 16 body features were listed. They follow: 1—Stronger than metal covered wood frame. 2—Riveted instead of nailed. 3—Electrically welded instead of glued. 4—Noiseless construction. 5—Long lived as chassis. 6—Good vision from wider windows. 7—As perfect as ingenuity and mechanical science can make a body. 8—Waterproof windshield easily removed—comfort. 9—16 to 22 gage steel used. 10—Riveted steel roof rail—safety and protection. 11—Complete steel underbody. 12—Steel doors—3 hinges—double locking security fastenings. 13—Window lifts easily operated and readily accessible. 14—Unit construction makes easy repair. 15—Waterproof pressed mouldings. 16—Full bucket seats equal to those used in \$1,500 cars—Seats adjustable.

Electric Fuel Pump

IN an electrically operated fuel pump now placed on the market by the V-R Fuel Pump Corp., Detroit, Mich., a gasoline filter is formed integral with the pumping unit. The device itself is very simple and it may be installed in a few minutes on any part of an automotive vehicle either above or below the level of the carburetor. The price of the unit complete is \$12.50.

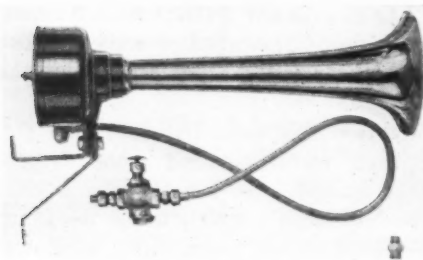
After attachment to the engine, frame or dash it is necessary only to connect the terminal on the pump with the battery side of the coil or to the ignition switch. Its operation is automatic with the turning on of the ignition switch so that in coasting down a hill with the ignition turned off, no fuel can reach the carburetor. It is said the V-R pump delivers a higher pressure of fuel to the carburetor than any other system and that a more constant level in the float chamber may be maintained.

As will be seen from the illustration, the fuel enters the pump on the left side and has to pass through the glass bowl containing the screen before passing on to the carburetor. The filtering element is quickly detachable by unscrewing the knurled nut and lifting the bail retainer.

Among the advantages claimed for this filter are that it will operate under all conditions of temperature, altitude or grade, will function when the battery is too weak to operate the ignition, is not affected by vibration and will deliver over 15 gallons of fuel per hour.

Typhoon Horn for Buses

A POWERFUL horn operated by compressed air and designed for use on buses, trucks, streetcars, railroads and boats has been placed on the market by J. Thos. Rhamstine Co., Detroit, Mich. It is priced at \$32 complete. The operation principle of the new air horn, known as the "Typhoon," is similar to that of an organ pipe where the tone is secured by resonance. It is essential that the vehicle or craft to



Compressed air at pressures from 25 to 100 lbs. operates the Typhoon horn

which the horn is to be attached is provided with a means of compressing air. An adjustment is embodied in the horn to enable it to be used with air pressures ranging between 25 and 100 pounds.

The projector or horn is formed of polished aluminum with the body in

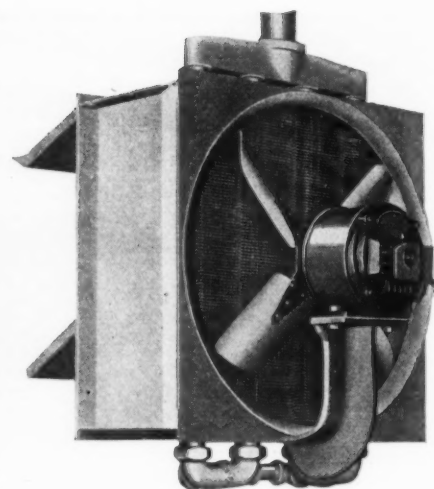


The V-R fuel pump operates electrically and includes a strainer

black enamel. Operation of the horn is by a valve placed on the floor boards and controlled by the foot. A flexible metal hose with $\frac{1}{4}$ in. couplings is provided to join the horn to the operating valve while the connection between the air tank and the valve may be made in the usual manner with copper tubing.

Herman-Nelson Model 20 Heater

A UNIT heater which could be applied to a garage is known as model 20 and is made by The Herman Nelson Corporation, Moline, Ill. The radiator of the heater consists of a one piece cast core upon which aluminum fins are wedged and held in contact with the metal by spring action. It operates on any steam pressure from atmosphere to 125 lbs. Incorporated with the heating element or radiator is an electric motor which either circulates room air through the radiating element or else takes fresh air from outdoors and sends it through the radiator, thus constituting a ventilating device as well as a heater. The model 20 unit complete with motor and deflector weighs approximately 170 lbs. and occupies 4 cu. ft. of overhead space. At 1150 R. P. M. each unit delivers in excess of 2000 cu. ft. per minute, while at 850 R. P. M. it delivers in excess of 1200 cu. ft. per minute. Operating at 1150 R.P.M. with inlet air at 50 deg. and steam pressure at 5 lbs. it delivers



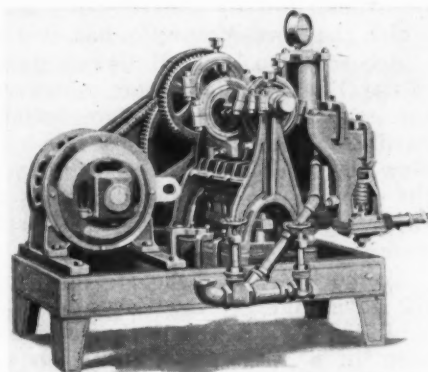
Herman Nelson model 20 unit type heater for factory or garage use

the equivalent of 560 ft. of radiation. The same unit with inlet air at 50 deg. and with 100 lbs. working steam pressure will deliver the equivalent of 960 sq. ft. of radiation.

Car Washer With Porcelain Lined Cylinders

COINCIDENT with planning a larger production of its high pressure car washers, the Bean Spray Pump Company, of Lansing, Mich., and San Jose, California, has trademarked its line of machines with the title "Bean Old Faithful Car Washer."

Of the "all-water" type the Bean washers provide a stream of water up to 300 lb. pressure. One of the features which has been employed continuously on Bean washers for the past 40 years and is retained on the newer models is the porcelain-lined cylinder bore for the pump. This enables the pump to operate with any kind of fluid without



The Bean Old Faithful Car Washer

any injury to the pump. An automatic pressure regulator is provided which relieves the pressure on the pump and motor when the washing guns are shut off. The Bean line now includes a wide range of car washers capable of accommodating from one to eight guns.

New Oldsmobile Sport Coupe

OLDS MOTOR WORKS announces that shipments of the new Oldsmobile sport coupe will begin the latter part of February.

The sport coupe has a roomy interior seat for two or three passengers and a second, or drop, seat for two is formed by raising the rear deck. The upholstery is genuine leather in a tan shade. The drop seat compartment is fully upholstered and the seat cushion and back have same spring construction as does the interior seat.

The upper structure of the sport coupe is of weatherproof tan fabric equipped with chromium plated landau bars. The fabric is in harmony with the Czarina brown duco finish of the body. Maroon molding is used and the striping is in cream. Natural wood or disc wheels are optional.

The entire rear quarter of the top can be opened so that passengers in the drop seat can converse with those in the front seat with the same ease and freedom as in a sedan. When opened, the rear wall of the top buttons to the coupe roof.

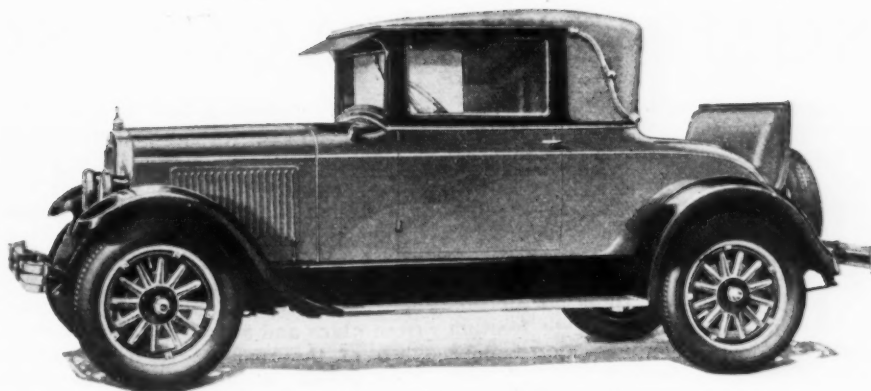
The sport coupe body is designed and built by Fisher and comes fully equipped with front and rear bumpers, snubbers, motometer, rear view mirror, automatic windshield wiper, gasoline gage, twin beam headlights controlled from the steering wheel and VV windshield. It also has the four-wheel brakes and 30 by 5.25 inch balloon tires which were recently added to Oldsmobile. The price is \$1035.

New Lycoming Bus Engine

SIX cylinder L head engine for buses and trucks is being offered by the Lycoming Mfg. Co., Williamsport, Pa., in its new T series. This engine is made in three sizes, all with a stroke of 5 in., the bores being $3\frac{1}{2}$ in., $3\frac{3}{4}$ in. and $3\frac{7}{8}$ in., respectively. The small engine is known as model TH and has a displacement of 288.6 cu. in., developing 60.5 h.p. at 2700 r.p.m. The intermediate size engine known as model TF has a bore of $3\frac{3}{4}$ in., and a displacement of 309.6 cu. in., develops 71 h.p. at 2600 r.p.m., while the large engine, model TS, has a displacement of 353.8 cu. in., and develops 75 h.p. at 2600 r.p.m.

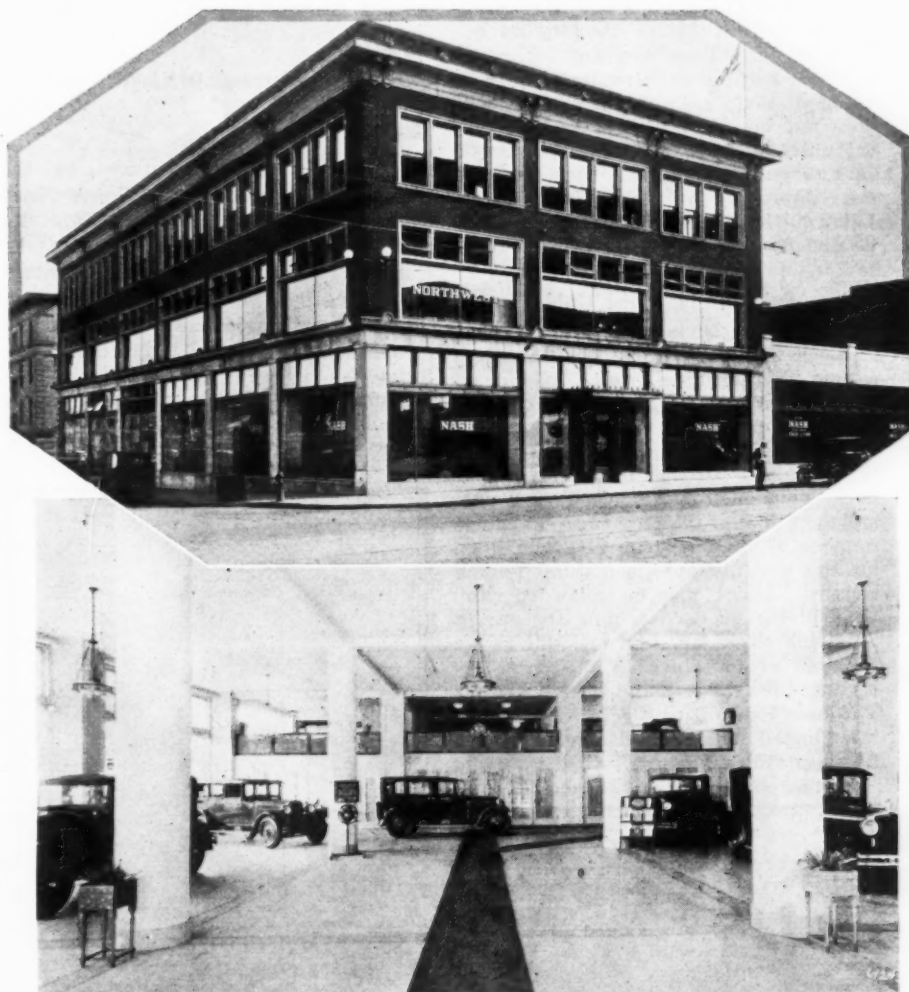
Features of the engine include four bearing crankshaft, compression ratio of 4.4, pressure lubrication to main and connecting rod bearings, also to front camshaft bearing and idler gear bearing, the use of Swan type manifold and an oil pressure regulator connected to the throttle.

February 17, 1927



New Oldsmobile Sport Coupe with rumble seat

New Headquarters for Nash at Minneapolis



Exterior and show room views of new three-story home of Northwest Nash Motors Co. in Minneapolis.

The new building of the Northwest Nash Motors Company, Nash distributors in Minneapolis, has provided a thoroughly modern and conveniently located automobile home for Nash in that territory.

With a frontage of 66 feet and a depth of 150 feet, a total of 4,600 square feet of showroom space is available on the first floor for displaying new cars. And in the used car department in the building adjoining there are 3,476 square feet additional floor space for displaying used cars. General offices are located on the mezzanine floor and comprise 3,000 square feet of space. Directly below the general offices and separated from the first floor showroom by artistic glass doors are the offices of the retail service department. Cars are received for service in a large room at the rear of the service offices.

One-half of the second floor is devoted to the parts department while the other half and the basement floor are given over to car storage. The entire third floor is used for shop purposes.

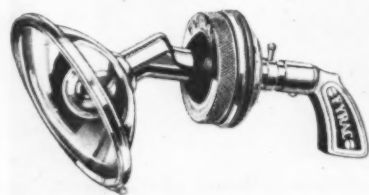
SOME NEW ACCESSORY ITEMS

"Graulock"

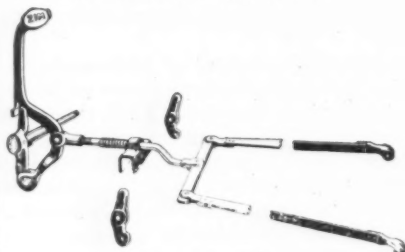
WHAT the makers describe as a "full coincidental automobile lock" designed in a manner to give protection against theft and to meet all requirements of parking and ordinances is given the trade name of "Graulock." It is a product of the Hisey-Wolf Machine Company, Cincinnati, Ohio. With this locking arrangement it is said ignition may be thrown "off" at any instant without accident hazard, the car may be coasted with ignition off, while the engine cannot be started and left running by shorting ignition wires. Also it is said the car can be parked in gear and locked. Gears do not have to be put in neutral before the engine can be stopped. They are not locked in neutral with the "Graulock." It is claimed that use of the "Graulock" does not interfere with other mechanical units of the car and installation is said to be simple. This lock has met the approval of the Underwriters Laboratories. Complete details may be had from the makers.

Full Circle Night Guide

THE Fryac Division of the National Lock Company, Rockford, Ill., offers a new "Night Guide" which in appearance resembles the Fryac Night Guide already known to the trade, but which has a big increase in sweep of radiation. This is through use of its "goose neck" construction which makes it possible to shine the light on a house number or road sign or throw it down on the car for aid in making engine repairs. Also it may be taken from the windshield and used around the car in repairing tires, etc. All original Fryac features are retained in the light, including the gun-grip and trigger switch. The new Fryac Full Circle Night Guide is equipped with a handsome bezel and has a nicked shell.



Full Circle Night Guide



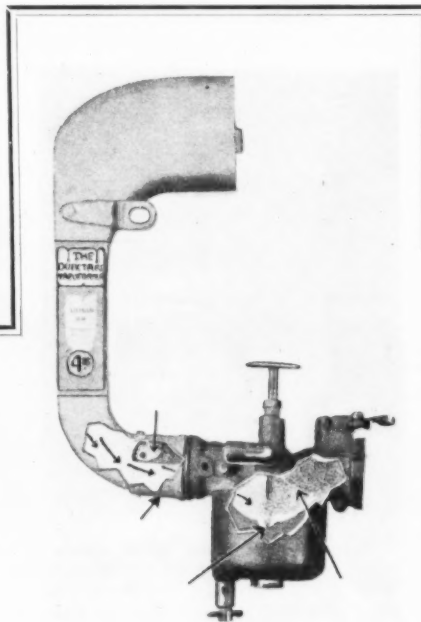
Zim Triple Brake Action

Sisson Lens

SISSON Lens for automobile headlights are manufactured by H. W. Sisson & Company, Chicago. The lens are designed for safety and improved vision in night driving. While magnifying and diffusing the light rays the Sisson Lens casts a shadow in a manner that protects approaching drivers from glare and yet gives the user clear view of the road ahead and roadside illumination enabling him to see both sides of the road, road signs and turns. Neither driver is affected, it is said, when Sisson lights are following another car. Sisson Lens, per pair, are priced from \$6 to \$14.

The Gas-O-Miser

DESCRIBED by the producers as "an atomizer for all cars" the Gas-O-Miser is manufactured by the Gas-O-Miser Company, 307 South Third Street, Minneapolis, Minn. This device it is claimed makes possible the complete burning of fuel and elimination of carbon deposit though a perfect mixture. It is said to save much of the owner's gasoline and oil cost. The price is \$1.50 for standard S. A. E. carburetors and \$2.50 for cars having especially shaped carburetor connections.



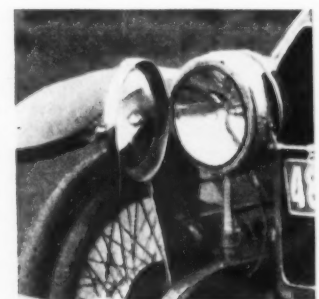
Quixstart Vapoformer

Quixstart Vapoformer

SAID to give constant automatic control of the air, heat and gasoline to conform to the different speeds and loads, the Quixstart Vapoformer is offered by the Motor Equipment Company, of Chariton, Iowa, as a device of high value to the Ford owner. It takes the place of the original hot air stove attached to the Ford carburetor. At the bottom of this heater is a chamber housing a heavy metal gravity valve which is actuated under changing driving conditions to control the passage of air into the carburetor so it is held to the correct supply for efficient and economic operation at all times, the makers state. Briefly, the claim for this device is that it supplies a proper mixture in the carburetor under any driving conditions, automatically providing a richer mixture on going up hill and a minimum lean mixture on downgrade. Price \$4.85.

Zim Triple Brake Action

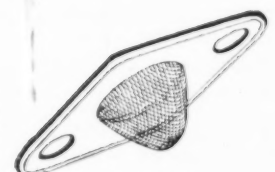
ZIM Manufacturing Company, 3047 Carroll Avenue, Chicago, has added to its accessory line the Zim Triple Brake Action for Ford cars and trucks. Pressure on the brake pedal, with this attachment installed, applies both the rear wheel brakes and the transmission brake, thus, greatly improving the general brake control, according to the manufacturers. The system consists of a special brake pedal, shaft arm, equalizer bar and a set of auxiliary brake straps. Complete equipment lists at \$10 with a charge of \$1 extra west of Denver.



Sisson Lens



"Graulock"



The Gas-O-Miser

SOME NEW ACCESSORY ITEMS

Con-Den-So-Meter

THE Con-Den-So-Meter is a device used as a radiator cap which assists in preventing evaporation of the cooling water. Its first function is to assist in condensing the vapors which rise into the annular chamber formed by the outer shell of the device. With slight increase in vapor pressure a piston operates to lift the top of the device and show a red warning signal. Further increase in pressure due to vaporization of the cooling liquid blows a whistle mounted at the lower end of the radiator overflow pipe. The device is also said to conserve alcohol in winter. A large combination Con-Den-So-Meter for large cars sells for \$12. It includes an ornamental dust proof cap and is nickel plated with green glass ornament. A combination cap and Con-Den-So-Meter for smaller cars sells for \$6.50 and a standard Con-Den-So-Meter without radiator cap which is adaptable to any plain or ornamental cap also sells for \$6.50.

Hydro-Check

A NEW shock absorber known as Hydro-Check is being placed on the market by the Hydro-Check Corporation of Monroe, Mich. This device sells for \$35 a set. The device is based on the principle of flow of oil through a predetermined orifice and the construction includes a safety valve to relieve excess pressure. Air trapped in the device is also used to modify the action of a straight hydraulic shock absorber.

Improved Cushers

SHOCK absorbers known as Cushers, made by the Chicago Roller Skate Co., 4406-58 W. Lake St., Chicago, are offered in an improved model. These shock absorbers act to check rebound and yet do not interfere with the normal operation of the car springs when

the deflection is slight. The new device is said to give quick action and to give a rebound check or control in proportion to the spring deflection. The mechanism includes a spring and cam and friction disk. The connection with the axle is by means of a cable. The price is \$30 for a set of four.

Steelclad Bushings

BRONZE bushings jacketed in steel are now being manufactured by the Monmouth Products Co., 882 E. 72nd St., Cleveland, Ohio. The steel and bronze are bonded together by a new process and the bushings are finished by burnishing which, it is claimed, eliminates the necessity for reaming. While the cost of these bushings varies with the size it is said to be generally lower than the ordinary bronze bushing.

Orrville Spring Governor

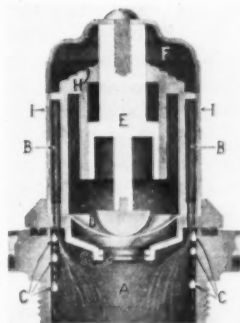
WHEN the automobilist hits rough roads he will find Orrville Spring Governors valuable, according to the producers, the Orrville Spring Governor Company, Brant Bldg., Canton, O. The governor is so constructed that when the car travels smooth roads it does not affect the riding qualities of the car but when rough going is encountered, throwing the springs into greater action, the governor's rocker plate acts automatically with the spring, producing a brake on it by creating greater inner spring friction thus slowing up action of the spring and steadying the car and preventing rebound. Installation may be accomplished in 15 minutes. Price per set of four \$9.

New Gilmer Radiator Hose

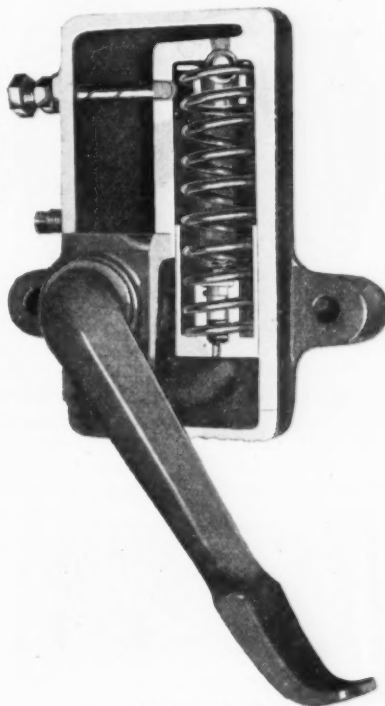
A RADIATOR hose provided with tough rubber lining and reinforced with three plies of woven fabric has been added to the products manufactured by the L. H. Gilmer Co., Philadelphia, makers of fan belts and woven products. This hose is made in standard sizes ranging from $\frac{3}{4}$ in. to 3 in. in diameter. Each 3 ft. length is branded with the size and marked off in inches to facilitate cutting. The hose is claimed to resist action of hot and cold water as well as oil and anti-freeze solutions.

Improvements in Tillotson Filtrap

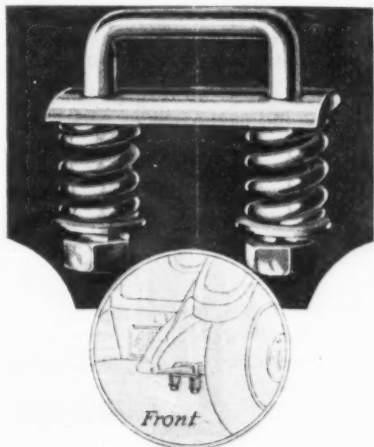
A NUMBER of improvements have been made in the design of the fuel filter made by the Tillotson Carburetor Co., Toledo, Ohio, and sold under the name of Filtrap. The central stud formerly used for supporting the glass bowl has been eliminated and in its place a chin strap is used. The Filtrap is made in two types, one for use with gravity feed systems and the other for application to the top of vacuum tank.



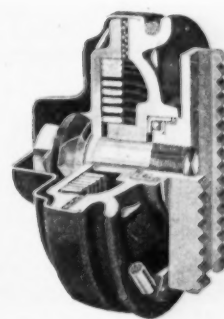
Sectional view of the Con-Den-So-Meter



Hydro-Check



Orrville Spring Governor



Cushers, a new rebound checking device

SOME NEW ACCESSORY ITEMS

The Reese Non-Skid

A DEVICE to overcome skidding on icy pavements has been developed by J. N. Reese, 5 S. Wabash Avenue, Chicago. The device uses sand which is sprinkled on the pavement immediately in front of the wheels on which the brakes operate. One special construction of the device utilizes a sand tank built into the rear curve of the body. Suitable outlet pipes carry the sand to points in front of the wheels and exhaust gas from the engine is employed to keep the sand dry and prevent its collecting moisture and freezing.

The construction of the brake pedal is such that in normal operation no sand is applied. However, if sand is wanted the pedal pad is merely tilted by means of side pressure exerted by the foot and this pressure applied at the side of the pad both applies sand and operates the brake at the same time.

Sun-Ray Aluminum Polish

A POLISH which is said to be especially effectual on aluminum and on parts such as Chevrolet radiator shells is known as Sun-Ray aluminum polish. It is a product of the Sun-Ray Sales Co., 3839 W. Madison St., Chicago. It is a maroon-colored paste which fills the pores of the aluminum so as to practically re-surface the piece to be polished. It also contains a slight abrasive which is not injurious to the solid metal and which removes spots caused by rain, road dirt and the like. It also contains a wax ingredient which produces a fine lustre.

Park-O-Gloss

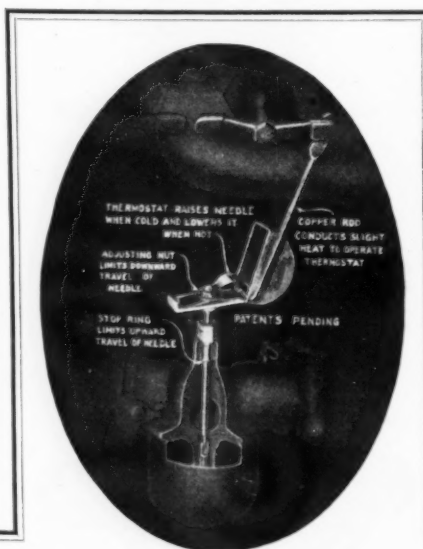
THE Park Chemical Co., 611 Donovan Bldg., Detroit, is manufacturing a material known as Park-O-Gloss which is said to renew the original color and gloss of lacquer finishes. This product, which retails for \$1 a can, is put up in cartons of 24 cans, and also in two-quart bottles packed 12 to the case, retailing for \$3 a bottle.

No-Tarnish

A PRESERVATIVE for the surface of polished metal is known as No-Tarnish and is offered to the trade by the No-Tarnish Products Corp., 50 Lispenard St., New York City. It is colorless and transparent and is said to resist cracking or peeling even when the metal is bent or broken. For outside use from one to four applications a year are recommended, after which no polish is necessary. A quantity of No-Tarnish to cover 6 sq. ft. sells for 65 cents, 15 sq. ft. \$1 and 32 sq. ft. \$2.

Thermo Gasaver

A THERMOSTATIC needle valve for the Ford carburetor known as the "Thermo Gasaver" is being manufactured by the Thermo Instrument Co., Inc., Norfolk, Va. Greater mileage, easier starting, better lubrication, less carbon and less overheating are advantages claimed for this device. When the engine is cold the thermostat holds the needle up to permit a rich easy-starting mixture, while on heating up the thermostat gradually lowers the needle valve, regulating the mixture to more economical proportions. This device takes the place of the original needle valve, two nuts holding it in place. Price complete, \$3.50.



The "Thermo Gasaver"

Rad-I-Grams and Town Plates

CAST aluminum initials for the radiator designed for identification and ornamentation are being produced by Tiffany Aluminum Products Company, 3069 Easton Avenue, St. Louis, under the name Rad-I-Grams. Each is furnished with rods for attaching and dealers may avail themselves of a free exchange policy which eliminates the necessity of carrying a large stock. List for each, 45 cents; list for set of three, \$1.25.

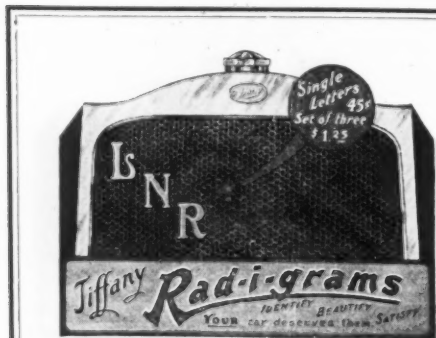
The same company offers Radiator Town Plates in both block and script types, made of highly polished cast aluminum. They are furnished with threaded rods for attaching. Block type lists at \$1. Script type lists at \$1.50.

Seiss Vacuum Operated Direction Indicator

A DIRECTION indicator which shows a red arrow in rear and a white arrow in front is being manufactured by the Seiss Mfg. Co., Toledo, Ohio. The device is vacuum operated, the control being within reach of the driver without removing hand from steering wheel. The vacuum operates the signal but is not required to hold the indicator in position. The arrow is made of celluloid and is mounted on the left-hand corner post of closed cars or the left windshield frame of open cars. It is illuminated for night driving and visible for 500 ft.

Eskimo Anti-Freeze Solution

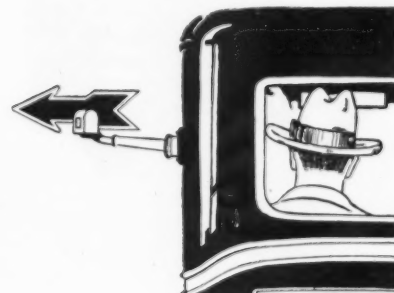
AN anti-freeze radiator solution known as Eskimo is being manufactured by the Northwestern Products Co., Rice Lake, Wis., and distributed by the Chicago Eskimo Distributors, 14 N. Clinton St., Chicago. The solution is said to flow freely at a temperature of 30 deg. below zero and to have a higher boiling point than water. It is odorless and is said to evaporate slower than water and to contain no alcohol, glycerine, calcium chloride, kerosene, honey, glucose or other sugar compounds.



Tiffany Radigrams



Tiffany town plates



Seiss Direction Indicator

The READERS CLEARING HOUSE

Questions And
Answers



On Dealers
Problems

Retiming When Chain Has Jumped

Would you kindly give me the proper procedure for reinstalling the timing chain on a Hudson car in a case where the chain has become so loose that it has jumped out of place from the camshaft sprocket as well as from the crankshaft sprocket?—Robert A. Tandy, 586 W. Park St., Dorchester, Mass.

THE first thing to do of course is to expose the chain and sprockets by removing the radiator and the timing gear cover. On the right side of the engine just to the rear of the ignition unit is the chain adjustment. This consists of an eccentric bushing which should be turned until the maximum slack is in the chain.

On the timing chain you will notice a half link, or as it is commonly called a hunting link. By means of a sharp chisel split the washer off of the pins that pass through this hunting link, and remove this link being careful that the parts removed do not get down into the crankcase. The ends of the chain can then be united and the seat pins put in place. The seat pin should be installed with its ribbed side in the direction of rotation as indicated by the arrows stamped on the chain. Then insert the rocker pin from the rear side of the chain with the pointed side of the pin against the flat side of the seat pin and toward the direction of rotation of the chain. Always use the old rocker pin but new seat pins. If this procedure with respect to installation of pins is not followed breakage of the chain will result. Place the washer on the ends of the seat pin and after backing it up, rivet over the end with a few sharp blows from a hammer. With the eccentric in the position that gives the greatest amount of slack to the chain and with the camshaft sprocket removed, we are ready to put the timing chain back in place.

In installing the chain the arrows should be toward the front of the car and pointing in the direction in which the chain runs. Start by placing the chain in position so that the punch marks on the crankshaft sprocket coincide with one of the punch marks on the chain. Also lay the chain over the accessory shaft. Then put the camshaft sprocket in place with its punch mark coinciding with the other punch mark of the chain. The distance D as shown in the diagram should be 24 pins on the Essex 4. On the Essex 6 it should be 20 pins and on the Hudson 18 pins.

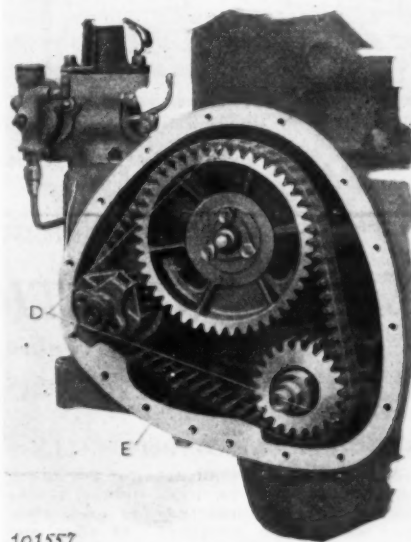
The ignition should also be checked as it is quite likely that it has been

thrown out of time by the work that was just done. Bring No. 1 piston to top dead center on compression stroke and continue to move the crank very slightly until the piston has just started to go down. By releasing the clamp and moving the ignition unit the points can be caused to just open in the retarded position which will be the correct setting for this piston location.

DOES GLYCERINE EVAPORATE?

Will any of the distilled glycerine solutions lose their strength after being used a season or can they be saved and used again the following year?—Walter F. Daasch, R. R. 5, Danversport, Ia.

AUTHORITIES are agreed that glycerine does not lose its strength when used in cooling systems of automobiles. However, glycerine does have



101557

Timing chain on Hudson

the peculiar property of leaking away through holes or cracks that would be too small to permit water to pass. In other words, though a cooling system may appear tight when tested with water, it may actually lose some of the glycerine from the solution. Of course if this happens and the level in the cooling system is brought up by the addition of water the solution is weakened and by the end of the season there may be so little glycerine left in the solution that it would be hardly worth while saving.

Is there any accurate way of checking a solution to determine its freezing point?

THIS was fully covered in an article beginning on page 20 of the Sept. 30, 1926 issue of MOTOR AGE.

Electric Heater Helps in Cold Weather

Q.—Would like to have your opinion on the advisability of using a small type electric heater with a reflector in an unheated garage in winter to raise the temperature of an automobile radiator and thus facilitate starting the car in severe weather. I have in mind the reflector type of small electric heater such as might be used in the bathroom of a home, etc. Would such a heater have capacity enough and would it be safe to hang it on the front of an automobile radiator for say 30 min. before the car was used?—Lloyd H. Jordan, Gordon, Nebr.

WE do not see any objection to this type of heater unless it is the faint objection from a fire insurance standpoint, that is, of having a glowing element which is exposed to the atmosphere. From a practical standpoint we do not believe there would be any real fire hazard. Heaters of this type consume about 650 watts and sell from \$8 to \$10. We believe that it would be more effectual to use a smaller heater under the hood for a longer period of time. It is much better to keep the engine warm than to try to heat it up. The exception would be where a car is left two or three weeks and is not used during that time. The point we have in mind is that the oil in the crankshaft passages will become congealed and will probably not be warmed up by the application of heat to the radiator for a period of time as short as one half hour.

This would warm up the radiator and send some water circulating through the cylinder block, but it would take more time than this for the heat to be transmitted through the miscellaneous parts of the engine to the oil passages in the crankshaft. On the other hand if the engine is kept warm there is less likelihood of the oil congealing so as to obstruct circulation. In using a heater under the hood it is essential to have a hood cover and a good radiator cover so as to hold the heat in. There is no question but what either type of heater will help a great deal, both in starting easily and in reducing the damage that occurs to an engine in the first minute or two when parts operate without adequate lubrication. Still another possibility is to use a 100 watt bulb provided with suitable guard and put under the hood in the vicinity of the carburetor and intake manifold.

Planning Your New Building

First Floor Not the Best Place for Repair Shop

Can you give us anything that will help us on building a garage and sales room, and how many cars it would take care of, on a corner lot 52 by 80 ft. Sales room to be large enough to display 5 cars nicely. Balance of first floor small offices and toilets with shop in rear and with elevator on first floor. Used car and new car storage on upper floor with wash rack on second floor. No basement necessary unless for heating plant.—Morse Motor Car Co., 324 N. Wayne St., Piqua, Ohio.

WHILE we have made our plan according to your request with the shop at the rear of the first floor and storage on the second floor, we would strongly recommend that you reverse this layout using the forward half of the second floor for the service room and the rear half for the storage of new cars and used cars in stock, reserving the main floor for storage of demonstrators and such cars as may be finished by the shop and awaiting delivery. There will be space for quick service and adjustment on this floor, but all repair jobs of any account should be taken to the second floor.

We are recommending this change in order to facilitate work in the shop by supplying much better light than could possibly be had on the first floor. It will also cut down your elevator expense to keep the transient storage on the main floor and altogether we believe it would be a great improvement to handle the problem in the way we have suggested. If this is done the two columns supporting the second floor, which are shown in the shop space, should be moved two feet nearer the side wall where they will fit in between the cars in storage and be in no way detrimental to the layout. The second floor will also allow you to handle one or two more cars in the shop, although it will of course cut down the storage capacity somewhat.

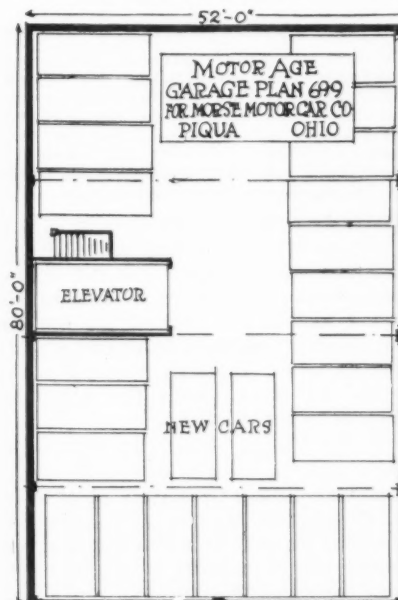
If you install the heating plant in a small basement at the rear of the building, basement stairway can be built in underneath the stairway going to the second floor.

As usually recommended we think that in this case, unless this location is exceptionally desirable, we would think it would be advisable to obtain a larger lot and put your building all on one floor. The only excuse for a two story building on so small a lot is high valuation in property which must be distributed over two or more floors. Elevators and stairways are always a nuisance, taking much time and causing considerable extra expense over the cost of operating a one floor building.



FIRST FLOOR

A rather complete plan for two story building on a small lot



SECOND FLOOR

LEGAL QUESTIONS ANSWERED

By Wellington Gustin

CAN HOLD CAR CONDITIONALLY

How can I collect an account for labor and material sold to a car owner, if account has accumulated for one, two, three or twelve months? If this car should come in the garage again can I hold same for account? Give me some way of collecting such accounts. Also give me the Kentucky law on such as above.—Marrowbone Garage, Marrowbone, Ky.

BY act of the Legislature, Kentucky gives the repairman a lien for repairs, work done, accessories furnished and supplies on automobiles. He may detain the car for payment or he may give up possession and still retain his lien. If possession is given up the garageman must assert his lien within six months by filing in the office of the county clerk a statement showing the account of labor performed or materials furnished on the car and the cost of same. Statements are filed in the same manner as the lien of mechanics and material men, after the removal of such a vehicle. Extension of time may be agreed upon between parties and if reduced to writing and signed by parties thereto it is held valid.

It appears you can hold car at any time it comes into your possession for repairs, and sell same after 30 days to cover your charges, but you must first advertise said vehicle for sale six days before date of sale, in some paper of general circulation in the town, city or county where the materials were furnished or labor performed on the automobiles.

MORTGAGE USUALLY FIRST

In case a car that is mortgaged and the mortgage is recorded is taken into a repair shop and repaired and if the car is held for the repair bill, can the mortgage holder recover the car without settling for the repair bill?—J. P. Ples, Ackley, Iowa.

IN most jurisdictions the mortgage is superior to the repair lien. Some few states attempt to give the repair lien priority and some courts have done so on the ground of enhancement in value of the repaired article and express or implied authority given to the mortgagor by the mortgagee to have repairs made.

Answers to Readers' Questions

A Hard Knock on a Hard Pull

I would like to have some information regarding a 1926 Chevrolet roadster. This car runs fine in every respect except that the clutch or universal joint makes a hard knock when the car is pulling hard as when driving through snow. This knock sounds exactly like a burned out bearing but I feel sure that it is not that. Neither is it a spark knock. I feel sure that it is either in the clutch or universal joint. What do you suppose this knock can be?

OFFHAND we were inclined to believe that this knock was caused by looseness in the rear main bearing. However, as you were of the opinion that it was something else we took this matter up with a local service man who is experienced on Chevrolet and he felt certain that the knock is due to a loose rear main bearing.

MAY REQUIRE SPECIAL FUEL

We have a 1926 Standard Buick coupe on which the owner would like to have a little more power and speed. We have figured on using a lower gear ratio in order to increase the speed but this would necessitate more engine power in order to keep the car from being sluggish at low speed. Would it be possible to increase the compression by having a very small amount milled from the top of the cylinder block? A gage shows the pressure at present to vary from 60 to 72 lbs. per sq. in. in each cylinder. Could 85 lb. pressure be used without undue knocking or making the engine turn over too hard for starting?—L. H. Thomas, 708 Garfield, Baxter Springs, Kansas.

OUR first recommendation is to leave the car and engine exactly as it is designed. This is due to the fact that the car is well engineered and the gear ratio and engine construction are designed to match the rest of the car.

Your suggestion is of course a possibility, but it would probably necessitate the use of special fuel all of the time so as to prevent knocking. You can increase the compression by removing from $\frac{1}{8}$ to $\frac{1}{4}$ from the top of the cylinder block but you should first take careful measurements of the clearance available to make sure there is no interference with the valves or other units in the combustion chamber. If the car is used on long runs where there are no hills and very little trouble due to sand or heavy pulling through mud, it might be advisable to change the gear ratio and then merely use the second gear a little more than would otherwise be required.

Could a supercharger be built that would work successfully on this car?

THIS would not be feasible from a commercial standpoint. Superchargers are still in a rather experimental stage and are made on a tool room rather than on a production basis. For

this reason the cost is out of all proportion to the value for the ordinary user of an automobile.

GOOD TEST FOR PISTON SLAP

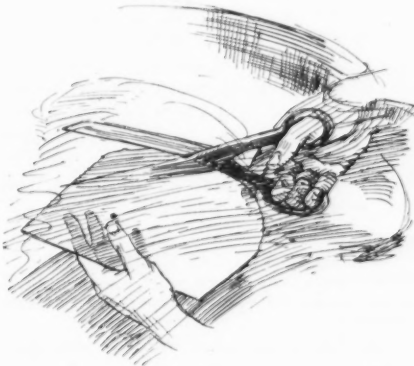
I have found in checking Dodge Brothers engine for piston slap which is caused by too much clearance, or for sprung or twisted rods, that the following method is very effectual; take a valve lifter and lift the exhaust valves one at a time and when you come to the cylinder that is giving the trouble, the knock will stop as you raise the valve. This test applies to all engines using aluminum alloy pistons.—Otis Stokes, c/o Duffer-Lewis Motor Co., Cor. 7th & Liberty Sts., Hopkinsville, Ky.

THIS sounds like a very logical test. It is probably better than testing by shorting out a spark plug for it not only relieves the piston of the explosion pressure but also relieves it of the compression pressure, thereby eliminating the force which, operating on the head of the piston, causes it to be driven against the cylinder wall in such a manner as to result in a knock.

SHOP KINKS IDEAS That have been Found Useful

CUTTING GLASS WITH SHEARS

In fitting a headlight lens that is too large or in cutting thin glass, it prevents breakage to put the glass under water. It can then be cut at the edge with scissors or shears while both glass and scissors are under water.—Paul Holland, Gentry's Garage, DeLeon, Tex.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

Connecting Rod Trouble Is Explained

In reading your questions and answers in the Jan. 13, 1927, issue of MOTOR AGE I noticed where R. C. Cain of Hamilton, Ohio, has had trouble with connecting rods burning out in a Diana car. We had the same trouble in a Nash. We found that in putting in new rods that in some cases they would be just a little tighter than the old ones and when the owner would get the car up to high speed the rods would warm up and get still tighter. This would starve the tight bearing, of oil, and out it would go. Now I have the boys in the shop put in a new rod and fit it just as they did before, then take it down and put a .002 in. shim on each side. This has done away with the bearing trouble and now the owner of the car can go out and drive at any rate of speed without burning out a rod. We burnt out five rods before we found the remedy for this trouble. We find that in a pressure lubricated system the rods cannot be fitted very tight as one will starve the other very easily.—Petterborg Nash Motor Co., Inc., Preston, Idaho.

YOUR solution of the problem is no doubt correct. Many mechanics are accustomed to fitting bearings for splash lubrication where it is permissible to have them tighter. With pressure lubrication a diametral clearance of .002 in. is desirable on the connecting rod and may be from .002 to .003 in. on the main bearings. In the article on the Diana we neglected to mention this as a possibility but did recommend the oil test which will show up a bearing too tightly fitted. Had this test been made the mechanic who fitted the bearing too tightly would have found that little or no oil was flowing from this connecting rod while from the old ones there would be a free flow. It is desirable that the oil drip in a uniform amount from all bearings. This test procedure is one that is standard in all Packard authorized service stations as a means of checking the bearing fit and is no doubt also adopted in other shops.

REPLACE 'EM IN PAIRS

We have in our shop a small Overland four cylinder car on which the gear at the bottom of the distributor shaft has been replaced three times since last July. The last time a steel gear was used but now this has cut away. Would a set of badly worn timing gears cause this trouble?—Fly Creek Garage, Flycreek, N. Y.

WE believe the trouble is due to the fact that the distributor gear only was replaced. Steel gears are now supplied and they should be replaced in pairs, a new spiral gear being used on the armature shaft at the same time a new gear is used on the distributor shaft. We do not believe that timing gears would have any effect on the operation of the distributor gears.

Clearing Up Electrical Troubles

Adjusting the Generator on a Caterpillar

Would like to have inside wiring diagram as well as method of adjusting charging rate on Robert Bosch generators used on caterpillar tractors (formerly Holt). As far as I can determine these generators are designed to operate either with or without a battery and as the tractors generally come without batteries, I understand the output is adjusted accordingly. I have found that they are set to generate only 6 volts and consequently they will not charge a battery. Can the voltage be increased and how?—L. Vilatte, Fredrick Hotel, International Falls, Minn.

THE change over from regulation for operation without a battery to regulation for operating with a battery is rather involved. We feel that if possible the change should be made by an authorized Robert Bosch service station. To properly make the change over it is necessary to have an instruction book, a means of driving the generator at various speeds up to 900 R.P.M., a voltmeter showing $\frac{1}{2}$ volt graduations from zero to 10, an ammeter, a 6 volt, 11 plate storage battery, and special Robert Bosch generator adjusting tools HY-756 and D-2456.

We are however, showing a sectional view of the generator which shows the combination regulator and automatic cutout mounted over the commutator. The regulator and cutout are structurally about the same. Each one uses an iron frame and winding which produce a magnetic effect which operates on a cylindrical plunger in the center of the solenoid or hollow winding. In one case this plunger is magnetically moved more or less to open a set of contact points and provide regulation. In the cutout the same general action of the plunger operates to close a set of contacts. In each case the motion of the plunger is opposed by a spring and there is a nut provided which can vary the tension of the spring. This is the general method used in setting the cutout points to close and open at the right time and also to adjust the voltage of the machine.

In connecting up the generator when used without a battery, generator terminal No. 61 was used. When the generator is to be used with a battery, generator terminal No. 51 must be used. It is therefore necessary that the hard rubber terminal bushings which are on the brush rigging frame be interchanged so that the one with the hole in it will be for generator terminal No. 51 and the solid bushing for No. 61 terminal. In connecting up the generator when used with a battery run a wire no smaller than No. 14 from the

Edited By A. H. Packer

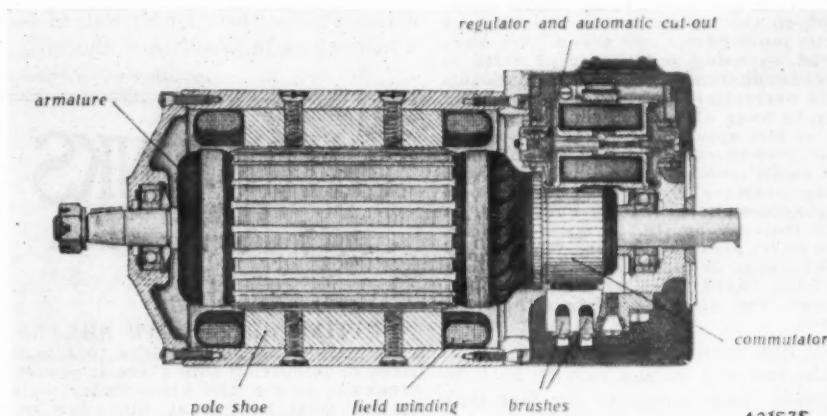
51 terminal to the light switch and from there to the 6 volt battery which has the negative terminal grounded. A 10 ampere fuse should be placed between the generator and the switch. The generators have Norma ball bearings at each end of the armature which are packed with a heat resisting grease and are therefore not to be oiled.

In adjusting the regulator on a new generator it is not necessary to remove the automatic cutout and voltage regulator from the generator as the back adjustments do not have to be changed. The regulator is mounted on the right hand side and the cutout on the left hand side of the generator, facing the rear end or commutator end of the generator. After each adjustment of the regulator screw, the con-

Why Interrupter Contacts Go Wrong

Why is it that a pair of breaker points will not operate when they look as good as new? I have had many sets of points which could not be made to work after being filed or ground. Putting on new points however, would make the engine operate perfectly. Have even tried new coils and condensers but nothing seemed to be right until new points were used.—N. R. Emmons, East Side Garage, Brawley, Calif.

BATTERY ignition contacts are made with a layer of tungsten welded to a steel head. In some cases it is difficult to see the line of division between the tungsten and the steel. If the tungsten has worn down or has been filed away until the steel is making contact then trouble will be experienced. The case you refer to however, is apparently one where even the tungsten does not seem to work. Tungsten



Sectional view of Robert Bosch generator on Caterpillar tractors

tact screw which is in the center of the regulating screw should be turned all the way in and then backed off a certain number of graduations which are determined by a chart and by markings on the special tools. From this it will be seen that the change over should really be made by an authorized service station if possible.

HIGHER VOLTAGE DOES IT

Why does the Ford car operate better on magneto than it does on battery ignition?

IN stating your question we presume that you mean that the car works better on magneto current when used in connection with the regular Ford coils. The reason for this is that the voltage of the magneto is much higher than the voltage of the battery and as a consequence the coils build up or respond more quickly than they do when battery current is being used. This results in snappier action of the engine.

is a very hard metal and it is our understanding that it is not always pure and contains microscopic particles of slag. Some tungsten contacts are sheered out of flat sheets and it is possible that at times a layer of tungsten will wear or burn away and leave the contact to be made by a layer of slag which is non-conducting.

Other tungsten contacts are made of rod from which slices are used so that in this case the end grain of the metal makes contact and there is not so much danger of a layer of slag causing trouble. The Clearing House Editor has at times had the same experience you had with new contacts and at one time he had a set of contacts which would form a peculiar arc the instant they touched each other so that they never seemed to make good mechanical contact and the primary current was accordingly so limited that a very poor spark resulted.

Clearing Up Electrical Troubles

How a Condenser Helps Ignition

Please publish in "Clearing Up Electrical Troubles" a diagram of a condenser and explain the action of current in same?—Russell M. Toombs, Maplewood Motor Sales Co., Maplewood, Mo.

A condenser might be described as an electric shock absorber. It is constructed essentially of two pieces of metal which are conductors of electricity, separated by wax paper or mica which is an insulator as far as electricity is concerned. The condensers used in modern battery ignition systems are usually made of paper and tin foil rolled up together and then impregnated with wax. The layers of paper are so used that the two strips of tin foil built into the roll do not touch each other at any point. This is illustrated in the diagram where the condenser shows a roll where the heavy lines indicate paper and the fine lines indicate tin foil. The whole diagram shown represents a battery ignition system in which we have an ignition coil with two windings, one a heavy winding or primary, and the other a fine winding of many turns known as the secondary.

Current will flow from the positive battery terminal through the primary winding and across the interrupter points and back to the negative battery terminal. This flow of current is indicated by the solid arrows. Current flowing through a coil of wire wound around a piece of iron has the peculiar characteristic that it does not wish to begin to flow and after it is flowing it does not wish to stop. For this reason when the interrupter points open to produce a spark in the secondary winding we find that the primary current does not want to stop flowing. You will notice this same condition if you open a switch which is carrying current to an electric motor. There is usually an arc at the switch.

If a considerable arc should form at the interrupter points it would mean that the current was still flowing across the gap and as this would not give a quick break down of the magnetism in the ignition coil it would not give a good spark for the ignition system. Accordingly some construction must be used which will stop the current quickly. The condenser is the device or electrical unit which enables the interrupter points to stop the current. At the instant that the points separate the current flowing through the coil, no longer being able to go across the points, finds that it can rush for an instant into the condenser charging up one layer of tin foil with

positive electricity and the other with negative.

We might imagine that little charges of electricity run along the positive tin foil and, without puncturing the paper, dent it in or push through the paper against the other layer of tin foil forcing charges to flow off as indicated by the other dotted arrows. As soon as the impulse of the flowing current dies out we would then find that the dented paper (dented in an electrical sense and not actually) would force the positive charges off again and there would be a slight flow in the primary circuit against the direction shown by the solid arrows. This action corresponds somewhat to the spring on a car which under the impact of a blow compresses, relieving the shock to some extent and then rebounds and returns to its original condition.

MAGNETIZER SHOWN IN MAY

I would like to build a good strong magnet re-magnetizer to be used with 32-volt direct current. Can you give some information as to wire size to use?—Irving O. Tuttrup, Fenwood, Wis.

WE generally feel that it is better to buy a good magnetizer than it is to spend your time trying to make one when you could be devoting it to your business more profitably. There was a plan published however on page 27 of the May 27, 1926, issue of MOTOR AGE. This referred to the construction of a 6 volt magnetizer. On page 28 of the Sept. 16, 1926, issue of MOTOR AGE there was an article on rewinding a 6 volt magnetizer to make it suitable for 32 volts. If you have a 32 volt battery and 6 volt magnetizer you can use the combination by connecting across three cells of the battery. If you only use the magnetizer occasionally this would work out O. K. If you use the magnetizer very much it would be desirable to use different cells so that you did not run down just one part of the battery.

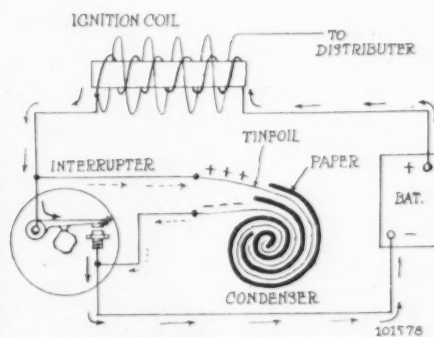


Diagram of condenser action

Juggling Timing Chain and Generator

How is a generator removed from cars such as Oakland and Oldsmobile, where a timing chain is used?—N. R. Emmons, East Side Garage, Brawley, Calif.

ON these cars there is a chain sprocket mounted on the generator shaft. The chain moves in a triangular path and travels around the crankshaft, camshaft and the generator sprocket. When the generator is removed the sprocket comes with it and it is accordingly necessary to hold up the chain to keep from losing the timing. If the chain is permitted to become slack it may slip a tooth or two and it will then be necessary to retime the camshaft. On some cars there is a hand hole plate provided in line with the generator shaft. This is removed, and it is then simple to loosen up the generator bolts and remove the generator.

As the generator is withdrawn it is necessary to work the chain off the sprocket and then run a wire through the hand hole inspection opening and the generator opening and keep the wire tight so as to hold the chain in place. On cars where no inspection cover is provided it is usually necessary to remove the radiator and remove the front gearcase cover. In some cases it might be necessary to jack up the engine in order to get the gear case cover off. On some cars, usually in the higher priced classes, the generator sprocket is mounted on its own bearing and the generator has a splined shaft. It is accordingly only necessary to loosen the generator and pull it out as its removal does not permit the timing chain to drop.

NASH SWITCH ON STAR

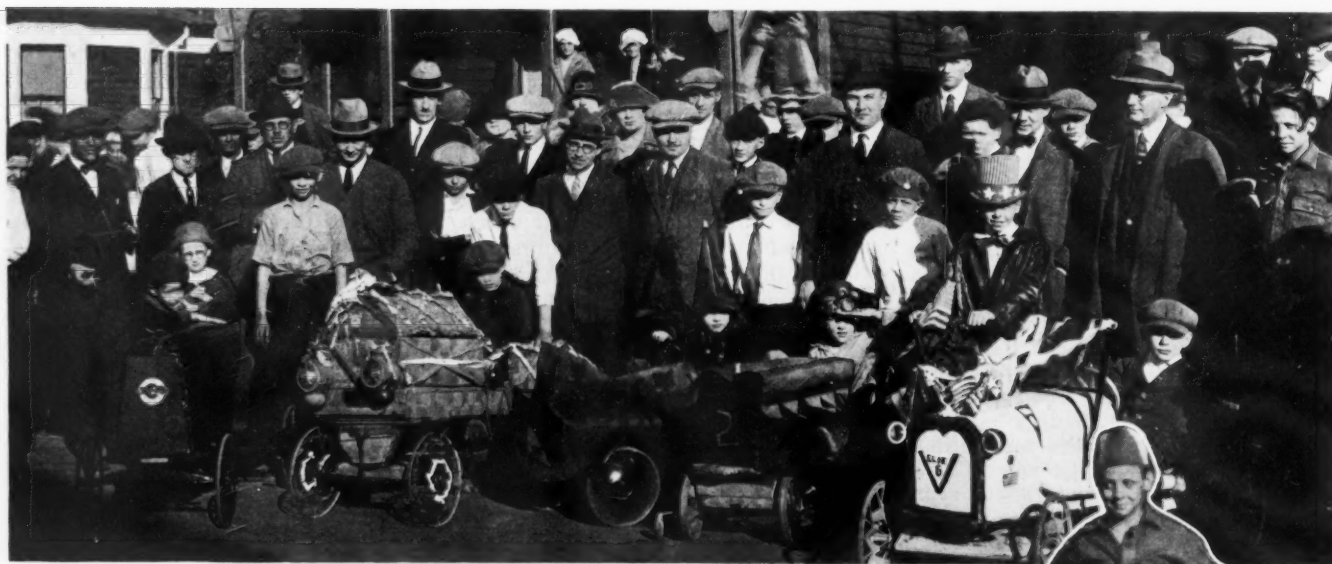
Advise how a Delco ignition and lighting switch as used on a 1926 Nash car can be wired up on a 1925 Star four cylinder coupe.—Lakeside Garage, Random Lake, Wis.

THE No. 1 terminal on the Nash Delco switch should be connected to ammeter. This is the ammeter terminal which is not connected to the battery side of the starter switch. The No. 2 switch terminal will have no wire on it. The No. 1 switch terminal will also have a wire going to the terminal on the generator cutout. The No. 3 switch terminal connects with the ignition coil. If you wish to dispense with the generator cutout then you can run the wire from generator to the No. 2 switch terminal. The rest of the terminals get current through the circuit breaker. No. 4 is tail light, No. 5 headlight, No. 8 instrument light and No. 7 is an extra terminal that could be used for dome light.

Races for Children Win Publicity for Dealer

Kiddy-Kar and Pushmobile Winners Carry Velie Banner in Novel Contest Sponsored by Automobile Company in Fort Wayne, Ind.

By H. L. CECIL



USING kiddy-kar and pushmobile races as a means of selling automobiles probably is something a little different.

The Poinsatte Auto Co. of Fort Wayne, Ind., Velie distributors, put over a series of these races for children recently, and got a great amount of publicity for its car.

Sponsoring the races, the Poinsatte Auto Co. at first got the backing of newspapers. Next prizes were enlisted from business men of the community.

In Fort Wayne it was necessary to hold sectional races with the winners of each meeting in a city-wide final.

And the winning pushmobile and the winning Kiddy-Kar bore Velie pennants.

Incidentally the newspapers had photographs taken of the winning cars. The Velie banners stood out prominently and appeared in the newspaper reproductions of the photographs of the winners.

The pushmobile races were similar to the kiddy kar events which were held for smaller children. The little tots with their Velie-banner kiddy-kars won applause of the crowds and gave the Velie great publicity.

Henry J. Poinsatte is president of the Poinsatte Auto Co., with his brothers, Albert M. Poinsatte and William J. Poinsatte, as other officials. The company erected a building of its own in 1919 on Maumee Avenue, fully 14 blocks from the business section of Fort Wayne. The only compromise made is in the matter of used cars, a downtown vacant lot being used as a "used car market" by the firm. The firm began handling the Velie in 1919 when it moved into its new building.

Above: Some of the entrants at the pushmobile race.
At Right: First Prizewinner.
Below: Home of Poinsatte Auto Co.



Some Pictures with a Motor Interest

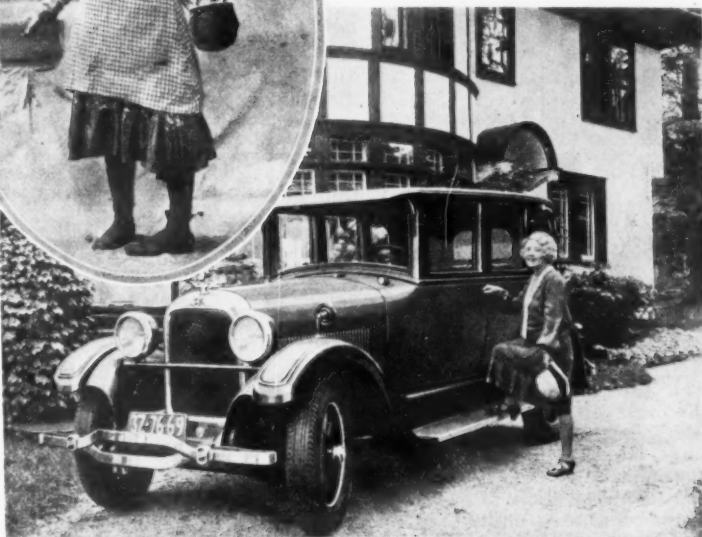


SAN FRANCISCO FROM TWIN PEAKS ROAD, one of the city's many beautiful drives. The Pacific shows at left and San Francisco Bay on the right with the Golden Gate between

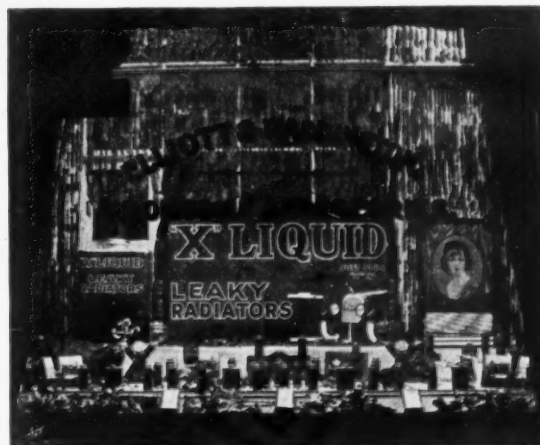


REMEMBER "SIS HOPKINS?" Rose Melville as "Sis" was one of the popular theatre ideals for 15 years. Now she has retired and spends a lot of her time in this, her fourth Studebaker

AS CHARIOT HORSES Fords are said to be all to the horsepower. One would imagine that these young charioteers would have run Ben Hur ragged



A PRIZE WINNING WINDOW DISPLAY of Elliott & Waddington, New Castle, Pa., in the contest run by the manufacturers of "X" Radiator liquid



PRODUCTION GOES UP WITH SALES

Factories More Cheerful As Buyers Enter Market

Used Car Stocks, However, Holding Back New Business in Certain Sections

NEW YORK, Feb. 17.—Some further increases in daily rates of motor car production have been made recently, although the industry as a whole is still slightly under the level of the same period a year ago. Sentiment at the factories has improved materially since the first of the year and the outlook is regarded with much more confidence. Weather has been fairly conducive to early season sales.

The worst obstacle of the industry just now does not lie in any unwillingness or inability on the part of the public to buy cars, but in the rather heavy state of used car stocks in the hands of dealers. This has forced them, in self-protection, to mark down trade-in allowances and many a prospect has to be turned away because he cannot get his price on the old car. Used car stocks should be reduced as the season progresses. In the long run, however, a permanently lower scale of used car valuations would be regarded as a strengthening factor.

Sales in the industrial districts are generally better than in the farm districts. The southern market is affected by this condition, but the reaction to the slump in cotton has been not nearly as serious as was expected last year. Florida business is well below the mark set a year ago.

Truck and bus business, both in the domestic and foreign markets, has got off to a good start this year.

73,676 Chevrolets Built in January

DETROIT, Feb. 14.—The Chevrolet Motor Co. shattered all of its previous January production records, this year, by building 73,676 cars which exceeds by almost 30,000, the January output of 1926. The February schedule calls for 84,000 automobiles which would establish a new monthly record in the history of the company, the best previous month being September, 1926, when 81,158 cars were built.

American Chain Buys Shock Insulator

NEW YORK, Feb. 14.—American Chain Co. has acquired control of the Rubber Shock Insulator Co., which was headed by A. F. Masury, chief engineer of Mack Trucks, Inc. The Mack company has exclusive right to the design on commercial vehicles, the Rubber Shock Insulator Co. holding rights to passenger car installation for which it issued licenses.

Big Hupp Schedule

DETROIT, Feb. 14.—The Hupp Motor Car Corporation has a production schedule for 5,500 Hupmobile Sixes and Eights during February, and, according to R. F. Cole, general sales manager, indications point to the shipment of about 5,000 units during the month, compared with 4,039 in February 1926 and with 5,024 in June, 1926, which was the greatest month in the history of the Hupp Motor Car Corporation. The corporation entered the month with \$14,500,000 in orders which is \$9,000,000 greater than at the beginning of February, 1926.

Gordon Heads Denver Retail Willys Branch



John H. Gordon

John H. Gordon, for 11 years one of the most prominent international figures in the automobile industry, has taken over the retail branch organization of Willys-Overland at Denver and will operate his new business under the name of John Gordon, Inc. The personnel of the former factory branch retail organization has been taken over intact by the new firm.

Hudson Adds 5,000 Men

DETROIT, Feb. 12.—During the past two weeks 5,000 men have been added to the forces of the Hudson Motor Car Co., which is operating at a rate usually reached only in the Spring months.

Ryan-Lite Draws Public

RACINE, Wis., Feb. 14.—The Stover Signal Engineering Co. reports that unusual public interest in the new Ilco Ryan-Lite was shown at both the New York and Chicago Automobile Shows, despite the fact that publicity and advertising about the new headlight has appeared only in automotive trade magazines and salesmen's bulletins.

Minnesota Trade Gains 300 Members in 1926

Series of Service Meetings with Exhibits to Take the Place of Formal Show

MINNEAPOLIS, Feb. 14.—The Minnesota Motor Trades association in session at Minneapolis, reported a gain in membership for the year of 300 to a total roster of 700 members. The new board voted to put on a series of some 20 service meetings, the first to be the week of Feb. 22 in Duluth, when automobile retailers are to have individual displays in lieu of the regular automobile show. The association will move its Minneapolis headquarters March 10 to 315 Plymouth building.

Secretary A. N. Benson announced opening of a freight traffic department to which all members may refer disputed freight or express bills and all traffic matters. He also gave advance notice of a state map and road guide that will bear the association emblem and the name of each member for free distribution. If the dealers wish copies they may get them with their own imprint. Fifty thousand will be put out by the association, to tourist information bureaus. Service stations will be recommended and in this way it is expected to oust the gyp stations.

In 1926 two new lines of service for members were the new car sales and the used car sales reports, which have met with favor.

The new officers are: President, J. M. VanRiper, Winona; vice president, E. F. Pomeroy, Minneapolis; treasurer, W. J. Potts, Minneapolis; secretary, A. N. Benson, Minneapolis.

Directors: W. V. Harrington, Minneapolis; L. O. Roller, St. Paul; J. S. Muir, Duluth; O. A. Watland, Albert Lea; E. M. Doane, Austin; Andrew Johnson, Bemidji; Robert Nicholl, Brainerd; O. A. Skagerburg, Cloquet; H. C. Torrance, Crookston; J. U. Steichen, Faribault; M. G. Brimhall, Fergus Falls; E. A. Brown, Hibbing; F. B. Clements, Mankato; W. M. Wallwork, Moorhead; Armin Retzlaff, New Ulm; R. S. Curran, Red Wing; A. J. Osman, Rochester; J. C. Schlough, St. Cloud; C. H. Anderson, Virginia; E. D. Coventry, Willmar; A. N. Tyrholm, New Richland; L. H. Powell, Marshall; O. Gildenmeister, Grand Rapids; L. L. Roth, Lambertson; H. L. McDowell, Ortonville; W. A. Jobe, Alexandria; Frank Kniss, Worthington; R. D. Whitney, Fairmont; A. Hartelt, Glencoe; F. J. Haberer, Park Rapids; Eric Sletten, Elbow Lake; H. M. Dempsey, Hinckley.

Kant-Skore Changes Name

DETROIT, Feb. 12.—The Kant-Skore Piston Co. has changed its name to Aluminum Industries, Inc., due to its diversified operations in the aluminum industry.

American Car and I.H.C. to Reciprocate Products

Each Company Will Stock Certain Trucks, Buses and Parts Made by the Other

NEW YORK, Feb. 14.—Under an arrangement just concluded between the American Car & Foundry Motors Co. and the International Harvester Co. of America, the two companies will sell certain of each other's products.

The International line, under the arrangement, will consist of a light bus and a series of truck models. These the American Car & Foundry Motors is authorized to sell along with its own products to established rail lines and transportation companies, while the International will sell its line of trucks and light buses as well as the A. C. F. in other markets.

Hall-Scott engines will be used for certain truck models to be announced later by International Harvester.

A further extension of the arrangement will involve the stocking of parts for A. C. F. and Fageol buses and Hall-Scott engines in certain of the branches of the International company and of the International bus and truck models in A. C. F. branches.

The arrangement is regarded in the trade as a particularly happy combination, as the American Car & Foundry Motors has broad contacts in the rail transportation field, and International a large number of well established branches.

French Output Gains

WASHINGTON, Feb. 9.—French motor vehicle production showed little change in 1926, automobile and truck manufactures increasing approximately 200,000 units above 1925, according to reports received here by the U. S. Department of Commerce. Estimates of individual production of leading manufacturers show that Renault led with 60,000 cars in 1926; Citroen was second with 45,000, and Peugeot third with 28,000.

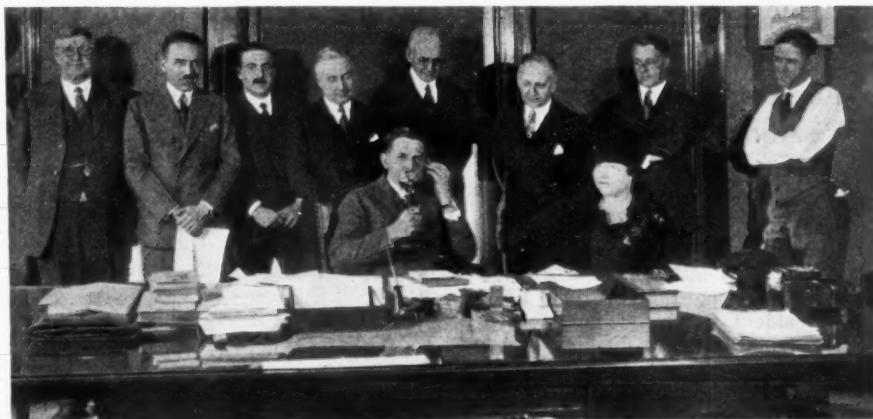
Morgan Joins Kelly

SPRINGFIELD, O., Feb. 14.—Directors of the Kelly-Springfield Motor Truck and Bus, Inc., have selected W. F. Morgan, New York City, treasurer and Elmer Wolf as assistant treasurer. Mr. Morgan is of F. B. Keech's investment bankers. H. W. Torney is president of the company.

160 Hupp Dealers at Show

CHICAGO, Feb. 14.—R. S. Cole, general sales manager of the Hupp Motor Car Corp., reports that 160 Hupmobile dealers attended the Chicago Automobile Show and that the distributors who attended the show succeeded in obtaining a number of new dealers. Sales at

Studebaker Gets Order for 1,000 Erskines by Ocean Phone



Seated at desk, Paul G. Hoffman, vice-president of the Studebaker Corp., and Mrs. Hoffman. Standing, left to right: E. T. Bond, manager, Indiana Bell Telephone Co., H. S. Welch, manager of export sales, Studebaker Corp., L. Manson, Holland distributor for Studebaker, John Ellsworth, A. L. Hubbard, and Elmer Higgins, all of South Bend, A. J. Chanter, assistant to President A. R. Erskine, and H. E. Dalton

SOUTH BEND, Ind., Feb. 14.—One of the largest export orders ever placed by telephone, and what is believed to be the largest order for automobiles ever placed by ocean radiophone, was put through to the Studebaker plant by L. J. Ollier, managing director of Studebaker (Great Britain) Ltd., who asked Vice-president Paul G. Hoffman for 1,000 new Erskine sixes.

The Erskine sells for £295 in England, making the order amount to

approximately \$1,500,000. The order represented only the April quota of these cars for Great Britain. During the 5,000-mile conversation, Mr. Ollier declared he could deliver the entire 1,000 at the present time if he had them on hand.

Mr. Hoffman's call to London was the first trans-Atlantic message through the new service from Indiana. The service, until this week, was confined only to the eastern states.

the show both at retail and wholesale, he said, were far greater than last year and on the basis of the present outlook the Hupp Corp. is planning to produce 70,000 passenger cars in 1927. The daily schedule at present is 250 cars.

Adopt Four S. A. E. Sizes

DETROIT, Feb. 14.—At a general conference held here under the joint auspices of the National Committee on metals utilization and the division of simplified practice of the Department of Commerce, four Society of Automotive Engineers standards were approved as the basis of simplified practice effort in their respective fields. These four are the standards for spark plug sizes, brake linings, taper roller bearings and piston and piston ring oversizes.

Sherwood Re-elected

ROCHESTER, N. Y., Feb. 14.—Frank L. Sherwood was re-elected president of the Rochester Garage Owners' Association at the annual meeting held last week. This is Mr. Sherwood's third year as president of the organization, he having been its head continuously since its organization in 1925. Other officers elected for 1927 were John E. Scheg, vice-president; Charles W. Punch, secretary, and George B. Patterson, treasurer.

Dismiss Scripps Suit

INDIANAPOLIS, Feb. 14.—Judge Robt. T. Baltzell in Federal Court here has dismissed the suit brought by James Scripps Booth of Detroit to enjoin the Stutz Motor Car Co. of America from manufacturing and selling the new Safety Stutz car and demanding an accounting of \$3,000,000 in profits. Mr. Booth charged that the construction embodied in the Stutz was his design.

Canada Output Up

WASHINGTON, Feb. 14.—Canadian automobile plants in 1926 showed a production record of 205,116 units, of which 130,792 were for home consumption, according to a report this week to the U. S. Department of Commerce. The total value of Canada's combined automotive exports in 1926 was \$38,222,387, as compared with \$39,417,614 in 1925.

New Seattle Branch

SEATTLE, Wash., Feb. 14.—W. L. Eaton, Seattle distributor of Dodge Brothers motor cars and Graham Brothers trucks, has opened a branch in West Seattle, located at West Alaska and Forty-second Avenue Southwest. Charles Simpson, formerly used car manager at the main store, has been appointed branch manager.

Willys to Build Coast Plant for the Whippet

**\$1,500,000 Will Be Spent;
Factory Will Employ
About 800 Persons**

SAN FRANCISCO, Feb. 14.—The Willys-Overland Company plans the immediate establishment of an assembling plant, probably either in San Francisco or Oakland, according to John N. Willys, president of the corporation, who was in San Francisco during the automobile show, on an inspection tour of sites offered for the new plant.

"I have with me, complete plans, designs and estimates for the California plant," said Mr. Willys. "I shall devote considerable time to studying the situation and sites in San Francisco, Oakland and Los Angeles, and will make a decision on the location of the plant this trip. The California assembly plant will cost approximately \$1,500,000 and will furnish employment for 800 persons. Model 70 and the Whippet will be assembled here.

Mr. Willys declared that he expects few if any more price reductions in cars this year; that he believed the automobile merchandising industry would be somewhat better than that of 1926, and that his own output for 1927 will be approximately 295,000 cars.

In an address to 200 Willys-Knight dealers at an all-day sales convention in the Hotel St. Francis, Mr. Willys outlined plans for 1927 and said, in part:

"The time has come when the greatest work any motor car manufacturer can do is to organize the sales-force so as to give the kind of field representation that motor car dealers now expect and to which they are entitled. Such an organization must take into consideration both sales and service, for the motorist today expects intensive co-operation, after he has bought his car.

"The individual dealer must look to his market coverage, and the backbone of his future success must be sustained by his obtaining complete coverage in all sales fields. The name 'dealer' gradually will be supplanted by the name of 'merchant' in the motor merchandising field."

Assign Dirt Track Dates

CHICAGO, Feb. 12.—At a meeting of the Contest Board of the American Automobile Association held in Chicago last week, a number of dirt tracks were officially recognized and assigned dates for 1927. The tracks to which dates were assigned are: the Hawthorne track, Chicago; the Robey, Ind., track; the Crown Point track and the Winchester, Ind., track. Others probably will be given definite dates later.

Present at the meeting were Val Haresnape, manager of the Contest Board of the A. A. A., and Andy Burt, middlewestern representative of the

An Old Radiator? Make an Aerial

PONCA, Neb., Feb. 14.—A cast off radiator filled with brine water is being used very successfully as a radio aerial by Lamont Hart, garage proprietor here. Mr. Hart says this device serves splendidly as a non-directional aerial. As an advertising stunt he has placed the loud speaker of the radio connected with this aerial under the hood of an automobile in the show room.

Contest Board. Greater interest than ever in dirt track is expected to follow the sanctioning of these races by the A. A. A.

Plants to Cover Large Area

SAN FRANCISCO, Cal., Feb. 12.—According to preliminary plans for the new Ford plant at Richmond, on the northeastern mainland shore of San Francisco Bay, two concrete and steel buildings, each 450x1600 feet are to be erected. Each will cover a ground area of approximately 16 acres. Estimated cost will be \$2,500,000 for the two. A power plant, to cost \$650,000 is to be built.

Construction of the plant is scheduled to start Dec. 1, 1927. The tract consists of 63 acres. The plant is planned for the assembling of Fords, trucks and tractors for export to the Orient.

To Open Nurburg "Ring" in June

PARIS, Feb. 1.—(By Mail)—Next June Germany will officially inaugurate the Nurburg Ring, a figure eight 18-mile mountainous proving ground and race track, on which 2,500 men have been at work since September, 1925. Twenty-seven miles from Bonn, 37 miles from Cologne and Coblenz, 68 miles from Aix-la-Chapelle, easily reached from both France and Belgium, the Nurburg Ring has been constructed in the midst of a deserted but picturesque forest land, and its roads, which have an average width of 30 feet, this being increased to 65 feet at certain points, do not pass through any township or village and bridge over or tunnel under existing state highways.

Gets Velie Territory

SPRINGFIELD, Mass., Feb. 12.—Walter R. Phillips has been appointed Velie distributor for this territory. Retail dealers appointed include the Belwhite Garage, Hendry's Garage and C. K. Beswick of Bartlett's Garage in Springfield, Reardon Bros. in Holyoke and George H. Weir in Palmer.

Start Work on Ford Plant

LOS ANGELES, Feb. 12.—Work has been started on the erection of the Ford Motor Company's new assembly and manufacturing plant on the company's property at the harbor between Los Angeles and Long Beach.

Studebaker's 1926 Net Sales \$141,536,652

**\$3,124,794 Transferred to
Surplus After Regular
Dividends Paid**

SOUTH BEND, Ind., Feb. 14.—The sixteenth annual report of the Studebaker Corp. released today shows total net sales for the year ending December 31, 1926, amounting to \$141,536,652.01 and net profits of \$13,042,119.07. After paying the regular dividends of \$5 on the common stock and 7 per cent on the preferred stock amounting to \$9,917,325 a balance of \$3,124,794.07 was transferred to surplus account.

Total sales of the company were 12.3 per cent less than in the previous year and net profits were 21.5 per cent less. Explaining the reduced sales and profits the report says:

"The decline in our sales and profits of 1926, as compared with 1925, was due to a greater demand for cars of lower price than ours and to a slump in our sales of open models. We more than held our position in sales of The President and other Big Six models, while our Custom Sedans and Victorias have broken all of our sales records for these types of vehicles. With these jobs and the Erskine Six in four models, priced below \$1000, we enter 1927—our Diamond Jubilee Year—in fine shape to make a record."

A number of extensive improvements made by the company during the year involved the expenditure of large sums. These included the construction of an engineering and research building and laboratory at a cost of \$434,000. Another large expenditure was \$617,375 for the purchase and improvement of a proving ground near South Bend occupying 800 acres.

The moving of the company's entire engineering department from Detroit to South Bend, which was accomplished in November, was another event of the year.

Another large expenditure was involved in the designing and testing of the Erskine Six and the exhibition of this car at foreign automobile shows at Paris, London, Edinburgh, Brussels, The Hague, and elsewhere.

The report shows that the Studebaker Corp. now has 950 preferred and 18,747 common stockholders. The average number of employees was 21,191, as compared with 21,977 in the previous year.

Brower Distributes Reo

SALT LAKE CITY, Utah, Feb. 12.—The Brower Motor Company has taken on the distribution for the Reo car, held heretofore by the Weeter Motor Co., which will continue to handle the Packard.

Michigan Trade Association in Annual Banquet at Book-Cadillac Hotel, Detroit



Six hundred dealers attended the seventh annual banquet of the Michigan Automotive Trade Association at the Book-Cadillac Hotel in Detroit January 26. C. F. Kettering, president of General Motors Research Corp. was the principal speaker.

Uphold "Seizure" Policy

WASHINGTON, Feb. 14.—The legality of insurance by a dealer, banker, or acceptance corporation covering the loss or confiscation by the government of an automobile used in the liquor traffic was sustained in the Federal Courts of Idaho, this week according to decision reported to the U. S. Department of Justice. It was argued by the government that such insurance would be contrary to public policy as it aided law violators, the court holding, however, that it was not.

Elks' Building for Show

MOLINE, Ill., Feb. 14.—The Elks' building has been secured for the Moline automobile show, tentatively dated for the third week in February. Enlargement of one of the rear doors of the building will be made and permit entrance of the cars to the spacious auditorium. Dealers are planning one of the finest shows in the city's history. John H. Bushong is chairman of the show committee and Fred C. Day, secretary. Clarence Dean and William McMullen will also serve on the general committee.

Gillette Joins U. S.

TOLEDO, Feb. 14.—Appointment of Leslie S. Gillette as eastern advertising representative for the automotive accounts of Willys-Overland, Inc., The F. B. Stearns Company, Falcon Motors Corporation and the Federal Motor Truck Co., is announced by the United States Advertising Corporation. Mr. Gillette comes to the agency after spending five years with the Chilton Class Journal Company, publishers of automotive trade and business magazine.

Night School for Mechanics

CLEVELAND, Feb. 14.—In co-operation with the Board of Education, the Cleveland Automobile Manufacturers' and Dealers' Association has opened a

night school for automobile mechanics who are already journeymen. A day school for boys is already in operation.

The night school is for men employed in the day time in factories or service stations. The course is outlined as follows, each subject requiring six weeks; electrical systems, carburetion, engine repair, transmission and clutch, axles and brakes, general chassis repair, and study of materials. The cost \$6 for the entire 36 weeks.

Contest Creates Show Interest

KANSAS CITY, Mo., Feb. 12.—In connection with the Kansas City automobile show this year the Kansas City Motor Car Dealers Association is holding a puzzle contest. The person offering the most meritorious solution is to receive a \$1500 Gardner Sport model roadster on the final night of the show, Feb. 19. The puzzle series started in the Kansas City Star on Feb. 1, and will continue daily until Feb. 16. The series represent problems, that when correctly solved, portray the name of some individual type or make of car. A slogan for the automobile show, of not more than ten words must also be submitted with the solved problem. The idea that the slogan must carry is that everyone should go to the show, and the winner, of course will be the one who submits the best slogan.

More than 6500 out-of-town dealers are expected to attend the show, which will be held in the American Royal building from Feb. 12-19. The dealers will come from New Mexico, Kansas, Missouri, Oklahoma and Nebraska. Some are also expected from Arkansas, Iowa and Texas.

Dealer Takes Cruise

ROCHESTER, N. Y., Feb. 11.—James J. Williams, Hupmobile distributor and president of the Rochester Automobile Dealers Association, sailed Feb. 5 from New York for a seven weeks cruise to the West Indies.

1200 Dealers Meet With A.E.A. at Minneapolis

E. J. Ashton and T. H. Stambaugh Are Speakers at Merchandising Session

CHICAGO, Feb. 14.—More than twelve hundred car dealers, accessory dealers, garagemen, tire men, battery men and others identified with the automotive equipment industry attended a big merchandising meeting at the Nicolet Hotel at Minneapolis. This meeting was conducted by St. Paul and Minneapolis members of the Automotive Equipment Association, whose special merchandising representative—E. J. Ashton—was the principal speaker.

Those in attendance hailed from all parts of the territory served by the Twin Cities. The meeting was sponsored by the Minneapolis Iron Store Co., Nicols, Dean & Gregg, Reinhard Bros. Co., C. J. Smith & Co., Western Motor Supply Co., Williams Hardware Co., Durkee-Atwood Co., Marquette Mfg. Co., Inc., and Storm Mfg. Co., all members of the A. E. A. The meeting was promoted with the co-operation of the Minnesota Motor Trades association.

Mr. Ashton's address embraced ideas and experiences of successful automotive merchants, including ways to increase accessory sales, the need for maintenance, how to keep the shop busy, advantages of flat rates, how to get new customers and how dealers have increased volume and profits.

T. H. Stambaugh, service promotion manager of the Olds Motor Works, Lansing, Mich., also was speaker, his subject being "How to Get More Business Into Your Shop, and More Profits Out of It."

Members of the A. E. A. now have a total of nearly 10,000 salesmen calling on the general equipment trade. This body of men makes it a point to observe the plans of successful dealers, and this information is passed on to the A. E. A., which serves as a clearing-house for helpful ideas.

D.B. Has New Sedan

DETROIT, Feb. 14.—Addition of a special all-purpose sedan to its line has been announced by Dodge Brothers, Inc. A snug fitting door in the rear of the body makes it possible to remove the rear cushions and to utilize the vehicle for commercial purposes. Outwardly the car appears at all times like a sedan.

Big G. M. A. C. Profit

NEW YORK, Feb. 12.—The statement of condition of the General Motors Acceptance Corp., as of December 31, 1926, shows net profits for the year \$5,193,202.86. Dividends paid amounted to \$3,390,000. The company reported cash on hand of \$37,930,068.09 and total assets of \$274,778,919.12.

Accessory Manufacturers Distribute in 582 Cities

M.&A.M.A. Survey Shows Six Factories Have More Than 500 Jobbers in U.S.

DETROIT, Feb. 14.—A large and representative group of accessory manufacturers are distributing their products at wholesale in 582 cities and towns in the United States, according to a survey just completed by the Motor Accessory Manufacturers' association. Working with an organized accessory group of the membership, the association has made a study which shows the number of communities in which one or more manufacturers have recognized wholesalers, the number of manufacturers represented and the number of wholesalers employed in each city. Separate classifications have been made of the distribution facilities of companies selling through general automotive equipment jobbers and those selling through specialty distributors.

The survey was directed by Neal G. Adair, manager of the sales development department of the association, under the guidance of an accessory committee headed by W. S. Isherwood, of the A. C. Spark Plug Co., and including A. H. Bartsch, American Bosch Magneto Corp.; O. R. McDonald, American Chain Co.; A. G. Underwood, A. Schrader's Son, Inc.; and C. A. Popenhagen, Pines Winterfront Co. Manufacturers of virtually all kinds of representative accessory products distributed through wholesale channels contributed information.

Of the 582 cities and towns in the United States in which members had wholesale representation, automotive equipment jobbers were employed in 539 and specialty distributors in 259 communities. It was shown that accessory manufacturers generally were employing a large number of jobbers, six having more than 500 of these accounts while manufacturers employing accessory distributors maintained a comparatively small number of outlets.

In the analysis of outlets of manufacturers selling through automotive equipment jobbers there appeared 539 cities where one or more manufacturers had representation and 390 where three or more had jobbers. Cities where one or more manufacturers selling through specialty distributors maintained accounts numbered 254 while three or more manufacturers were represented in 104 cities.

Promote Safety Campaign

WASHINGTON, Feb. 12.—Plans for a national highway safety campaign were announced here by the American Road Builders' Association, following adoption of a resolution at the association's congress in Chicago to take an

active part in the fight to reduce automobile casualties on American highways.

This can best be done, the association declares by making all traffic regulations uniform, making all roads wider and straighter and by the elimination of dangerous grade crossings and narrow bridges. An active campaign to do these things will be begun at once by the association, headquartered here.

Low Rate of Credit Losses

NEW YORK, Feb. 12.—Credit losses suffered by General Motors Acceptance Corp. in the financing of \$1,722,933,128 in business in the last eight years have amounted to only \$1,661,897, or less than one-tenth of one per cent of gross business, it was disclosed here in figures published by the G. M. A. C. in connection with the \$50,000,000 six per cent debentures which were offered and quickly oversubscribed.

The company's statements show that there has been a progressive downward trend of such losses in the last three years, which has brought them from .0722 per cent in 1924 to .0537 per cent in 1925 and to .0369 per cent in 1926. Losses in 1926 amounted to but \$233,630 on a business aggregating \$631,543,573. The business of the corporation has increased from \$6,003,362 in 1922 to \$28,701,825 last year.

Big Chrysler Program

BUFFALO, Feb. 12.—E. B. Wilson, director of sales of the Chrysler Sales Corporation, Detroit, was the principal speaker at a luncheon held by the Justice Motor Corp. at the 174th armory, scene of the Buffalo Automobile Show.

According to Mr. Wilson in his address Chrysler shipments exceeded 170,000 cars in 1926, and production is laid for a quarter of a million Chrysler cars in 1927.

C. C. Peterson Handles Flint

KANSAS CITY, Mo., Feb. 12.—The Flint franchise for this territory has been taken over by the Peterson Motor Company which will operate two display rooms. A new building at 1814 Oak has been leased by the company for a storeroom. C. C. Peterson, who will head the new company has been in the automobile business in Kansas City for more than 17 years.

Coen Distributes Nash

COLUMBUS, O., Feb. 5.—Harry B. Coen, operating under the name of the Coen-Nash Motor Co., is the central Ohio Nash distributor. He succeeds the H. B. Tair Co., which handled the line for several years. The territory embraces about 15 counties in central Ohio.

Lawrence Promoted

SEATTLE, Wash., Feb. 11.—William Lawrence has been named manager of the used car department of the Washburn-Haines Company, Seattle, Chrysler distributors in Western Washington.

Prices Reduced on Seven Studebaker Body Styles

Cuts Range Up to \$200 in United States and \$260 in Canada

SOUTH BEND, Ind., Feb. 16.—Price reductions ranging up to \$200 were announced today by the Studebaker Corp. in celebration of its 75th birthday. The reductions affect three body styles in the Special Six line and four in the Big Six line. Models affected and the old and new prices follow:

SPECIAL SIX

Body Style	Old Price	New Price
Sport Roadster	\$1250	\$1195
Custom Victoria	1335	1325
Custom Sedan	1385	1335

BIG SIX

Cus. Victoria (Chancellor)	\$1735	\$1645
Cus. Br'm (Commander)	1785	1585
Sport Phaeton (Sheriff)	1610	1445
Sport Roadster	1680	1495

In making these reductions no change has been made in the standard equipment, which includes front and rear bumpers, disk wheels and four-wheel brakes. Canadian prices also have been reduced up to \$260.

Briggs Officials Buy LeBaron

DETROIT, Feb. 12.—Executives of the Briggs Manufacturing Co. have acquired LeBaron, Inc., of Bridgeport, Conn., custom body designers and builders with offices in New York, according to John H. French, president of the Briggs organization. Controlling interest was secured by Walter O. Briggs, chairman of the board, and Mr. French.

Michigan Sales for 1926

DETROIT, Feb. 12.—According to statistics compiled by the Michigan Automotive Trade Association there were 195,672 new passenger cars titled in Michigan in 1926, compared with 195,277 in 1925, or a gain of 395.

N.A.C.C. Handbook Out

NEW YORK, Feb. 12.—The 1927 Handbook of Automobiles, prepared by the National Automobile Chamber of Commerce, has just been published. Specifications are given of 178 motor vehicles and 786 models are listed, the products of manufacturers who are members of the chamber. All vehicles are gasoline driven except 11 electric commercial cars.

Stone Is Promoted

MILWAUKEE, Wis., Feb. 14.—C. A. Stone, promotion director of the Milwaukee factory branch of Willys-Overland, Inc., has been advanced to the position of wholesale manager, succeeding C. A. Best, who has been promoted to assistant branch manager at Detroit. W. H. Rehtin takes Mr. Stone's place as promotion director.

Automotive Heads Form New \$12,000,000 Bank

Plans to Underwrite Projects Without Calling on Wall Street for Help

DETROIT, Feb. 9.—Formation of a new Detroit banking institution by the Guardian Trust Co., which embraces among its directorate many men of high position in the automotive industry, is creating considerable interest in local banking and manufacturing circles. The new bank, it is said, will have sufficient resources to make it possible to underwrite manufacturing projects which heretofore have had to appeal to Wall Street for such services.

The new institution will be known as the Guardian Bank. It will consist of a savings and commercial bank, a trust company and a securities company under unified ownership. It will represent invested capital of about \$12,000,000, will have a greater capitalization than any other bank in Michigan and may surpass all banks in the country.

The bank is being formed under the banking laws of the State of Michigan and it will seek membership in the Federal Reserve system. Temporary quarters will be opened on the ground floor of the Buhl building in late spring and the institution will occupy the first five floors of the Greater Penobscot building, now under construction.

Among those connected with the project are:

Henry E. Bodman, Howard E. Coffin, Ernest Kanzler, Jerome E. J. Keane, W. Ladyard Mitchell, Fred T. Murphy, Ford Ballantyne, Howard Bonbright, Ralph H. Booth, Judson Bradway, Walter O. Briggs, Lawrence D. Buhl, Roy D. Chapin, George R. Fink, Fred J. Fisher, Edsel B. Ford, John H. French, Luman W. Goodenough, John C. Grier, Jr., Edward P. Hammond, Carlton M. Higbie, Harley G. Higbie, Serwin A. Hill, Roscoe B. Jackson, Albert Kahn, Alvan Macauley, Louis Mendelssohn, Charles S. Mott, C. Hayward Murphy, James R. Murray, Edward R. Naar, Phelps Newberry, Walter S. Russell, Alger Sheldon, Allan Sheldon, Luther S. Trowbridge, Charles S. VanDusen, Hiram H. Walker, Lewis K. Walker, William Robert Wilson, Clarkson C. Wormer, Jr., and Charles Wright, Jr.

Open Factory Zone Office

SALT LAKE CITY, Utah, Feb. 14.—The Chevrolet Motor Co. has established a direct factory zone office in the Continental National Bank Building. C. B. Spraker is in charge with D. G. Packer as assistant manager. They are both well known to Chevrolet owners and dealers in the Rocky Mountain territory.

Directing Activities of the Michigan Association



Frank E. Hathaway

Frank E. Hathaway, Dodge Brothers dealer in Muskegon, was elected president of the Michigan Automotive Trade Association at the recent convention in Detroit. He has been a Dodge Brothers dealer since the inception of that company and has been a director of the association since it was organized in 1921 as well as vice president in 1926.

Auburn Earnings Up

AUBURN, Ind., Feb. 14.—Net earnings of the Auburn Automobile Company for the year ended December 31, 1926, after all deductions, including provisions for federal income taxes, were \$949,132, or the equivalent of \$11.17 a share on the 84,929 shares of stock outstanding, a record year in the company's history.

Net of \$949,132 for last year compares with net of \$755,685 in the year ended December 31, 1925, when per share earnings were only \$8.89, figured on the present capitalization.

The year brought about great improvement in Auburn's financial position, current assets as of December 31, last, totaling \$4,714,571, as against total current liabilities of \$838,172, more than doubling working capital. More than half of the latter item was represented by cash, which totaled \$2,360,953.

N. Y. Registrations Drop

NEW YORK, Feb. 14.—There was a decided decline in registrations of new automobiles in this section during the week ended January 14, according to figures supplied by Sherlock & Arnold.

Total registrations of all cars in the Metropolitan District were 560 for this period, comparing with 910 for the week ended January 7. Total registrations for the Metropolitan District up to January 14 were 1470.

House Keeps Strings on Bill to Refund Taxes

Senate Strikes Out Rider, But Conferees Balk at Its Repassage

WASHINGTON, Feb. 14.—By a vote of 187 to 1 the House has voted to stand back of its former action in "tying strings" to the \$29,000,000 tax refund of illegally collected taxes from accessory and automobile manufacturers, which the Senate had eliminated from the urgent deficiency bill.

The measure, authorizing the refund, passed the House two weeks ago. A rider amendment provided that the manufacturers must give bond to insure that the taxes would be rebated by them to the ultimate consumer. The rider was stricken out in the Senate and the bill passed, authorizing the refund, was sent to the Senate-House conferees.

After a six-day disagreement, conferees of the House reported back to that body, as did the conferees of the Senate, that they were hopelessly deadlocked.

In announcing its decision to stand pat on the rider amendment, the automobile and accessories industries were charged by Rep. John N. Garner (Dem.) of Texas with attempting a wholesale raid on the U. S. Treasury to pocket the entire sum estimated to be \$29,000,000.

Under the rider provision, if the manufacturer cannot trace the tax back to the ultimate consumer, it must be returned to the U. S. Treasury within six months.

Have New Credit Policy

SPOKANE, Wash., Feb. 12.—The Eldridge Buick Company has put into effect a time payment plan for its paint, body work, accessory and service departments with 25 per cent down and monthly payments the terms given. The company has made the rather unusual record for this section of keeping its paint, body and service departments at work full time during the winter, all mechanics regularly employed early in the winter having been guaranteed steady work during the entire winter. The change in policy on payments was made to make possible continued stepped up production in these departments.

Buys Studebaker Branch

BOSTON, Feb. 12.—Henry J. Kelley is now the owner of the Studebaker branch at Brookline opened by the Studebaker Sales Company of Boston some months ago. He was formerly sales manager for the Donovan Motor Car Company when it had that line and later was with the W. H. Gleason Company selling Kissels.

Ft. Worth to Hold Big Show March 5 to 12

Every Standard Make Will Be on Exhibit, Manager Jennings Says

FORT WORTH, Tex., Feb. 14.—Elaborate plans are now being worked out for the annual automobile show of the Fort Worth Automotive Trades association, Foster P. Jennings, chairman of the show committee says. The show will be held in connection with the Fat Stock Exhibition March 5 to 12 inclusive.

"Every standard make of automobile in the latest models and equipment, known to the Texans, will be on exhibition at the coming show," Mr. Jennings said. "This year's show, the first to be held in the Southwest since the announcement of the new models and the refinements in the old models, will be the biggest ever attempted by the local dealers. That is because of the great interest in the new models and the wide territory represented at the Fort Worth show."

Mr. Jennings said the manufacturers and jobbers are co-operating with the dealers in efforts to make the show a decided success. He said the local committee will spend a great deal more on decorations than usual in order that the new models in their gay colors may be seen in appropriate settings. He said the dealers are demanding more exhibition space this year and that as a result the show rooms have been materially enlarged.

Mr. Jennings said this is the first time all the new models will be shown in one building and for that reason the dealers from Dallas, San Antonio, Waco, Houston, Shreveport and the territory embraced by those cities will attend the show. Many of the dealers in these cities have already declared their intentions of coming to the exhibition.

Dealers Organize

VAN WERT, O., Feb. 12.—Every line of automobiles sold in the county was represented at a meeting at which the Van Wert County Automobile Sales Association was organized. Salesmen participated with dealers in the meeting and will meet with them at the regular monthly gatherings. Officers elected are: President, J. O. Yahn; vice-president, J. H. V. Evans; secretary, Arthur Osborn; treasurer, Frank Leslie.

Distributes Locomobile

CLEVELAND, Feb. 12.—N. J. O. Strider, general manager of the Ohio Locomobile Co., factory branch, has appointed H. L. Kirchner Locomobile distributor for the Youngstown, Ohio, district, comprising 14 counties in Ohio and Pennsylvania. Mr. Kirchner is president of the H. L. Kirchner Motor Co., Youngstown.

Wants "Cowcatchers" on Automobiles

SAN FRANCISCO, Cal., Feb. 12.—Motorists in California will be required to equip their automobiles with devices resembling the cowcatchers on locomotives, if a bill introduced in the state legislature by Assemblyman Robert B. Fry, of San Francisco, becomes a law. Passage of the measure is not so improbable as its character would indicate. Fry's bill specifies that every automobile driven in California be equipped in front with a "life-saving device, so that upon hitting a person the automobile will pick up the pedestrian, instead of passing over his body."

Association Names Officers

WATERTOWN, S. D., Feb. 12.—The South Dakota Automobile Trades Association will have its 1927 convention in Sioux Falls. At the convention in Watertown officers were elected as follows: President, D. Urquhart, Huron; vice-presidents, S. C. Koppang, Sioux Falls; Fred Varle, Deadwood; secretary, H. M. Whisman, Huron; treasurer, E. R. Judy, Aberdeen; directors, O. M. Saylor of Rapid City, A. B. McGowan of Redfield, E. P. Johnson of Brookings, E. J. Hutton of Watertown, George Dressen of Mitchell.

Hold Service School

DALLAS, Tex., Feb. 12.—The Nash-McLarty Motor Company of Dallas, Nash distributors in North Texas, had the service men from all parts of the territory in the city for a two-days' school in repairs and service. More than 100 service men were here for the course of instruction and the explanation of the parts and the general repair system.

Jobber's Salesmen Visit Plant

CLEVELAND, O., Feb. 12.—Johnson Brothers Supply Company, Wichita, Kans., jobbers, recently sent its entire sales force of 18 men to the plant of the Van Dorn & Dutton Co., Cleveland, to obtain some factory angles to the merchandising problem. They made a particular study of the Van Dorn Speed Axle and made a complete inspection of the plant.

Dine and Install Officers

WASHINGTON, Feb. 12.—The Washington Automotive Trade Association held its seventh annual banquet and installation of officers at the City Club, attended by 175 members and guests. Officers installed were: President, Stanley Horner; first vice-president, Fred L. Haller; second vice-president, J. M. Dugan; treasurer, L. S. Jullien; and E. M. Wallace, secretary.

Los Angeles Prepares Its "Greatest Show"

All Coast Dealers and Distributors Will Be Represented at Exhibition

LOS ANGELES, Feb. 14.—The fourteenth automobile show to be held in Los Angeles from February 26 to March 6 inclusive will represent the cumulative efforts of 27 years of engineering, coach work and manufacturing skill on the part of the leading automobile manufacturers of the United States. Practically all of the Los Angeles automobile and motor truck distributors, as well as a number of accessory manufacturers and dealers, have combined forces to make this current show a milestone in western motor car history.

The exhibit is being held under the auspices of the Motor Car Dealers' association of Los Angeles with Burt Roberts as manager. The committee is headed by Reeve Gartzmann, Oakland and Pontiac Six distributor, as chairman. Mr. Gartzmann is one of the five pioneer motor car dealers in Los Angeles, having functioned with this industry since 1909. Assisting Mr. Gartzmann and Manager Roberts are Myron C. Albertson, Albert C. Lusby, Stephen S. Nerney and Herbert E. Woodward. A great deal of the preliminary work has already been accomplished and preparations for the mammoth event are under way.

About 400 cars will be exhibited and there will be ample demonstration of the fact that super-refinements are continuing to attract the motor car manufacturer. The pronounced advancements in mechanical construction and the individuality and beauty of body design are bound to fire enthusiasm in the present show.

The five main tents and one shop equipment tent that are to house the various exhibits will evidence novelties of decorative treatment that will be sure to please the eye while a kaleidoscopic display of lights will add brilliancy to the showings.

If advance space application and general enthusiasm are any criterion, this year's automobile show in Los Angeles will be the greatest ever yet staged on the Pacific seaboard.

To Sell Chevrolet

BOSTON, Feb. 12.—The Commonwealth Chevrolet Company opened its doors recently adding another large retail sales establishment to Motor Row. It is located at 949 Commonwealth Avenue where the sales and service departments will be all under one roof. Robert B. Kayser, for many years with the Chevrolet under Mr. Sills and also at the factory, and Charles H. Pettit, a former Buick man, comprise the new company.

Coming Motor Events

Automobile Shows

Albany, N. Y.	Feb. 26-March 5	Lowell, Mass.	Feb. 22-26
State Armory		Display Week	
Allentown, Pa.	Feb. 28-March 5	Mankato, Minn.	Feb. 16-19
Manhattan Auditorium		Armory	
Ansonia, Conn.	Feb. 24-26	Moline, Ill.	Feb. 24-26
State Armory		Elk's Ball Room	
Asbury Park, N. J.	March 28-April 2	Omaha, Neb.	Feb. 21-26
Casino		Twenty-second Annual Automobile Show, City Auditorium	
Bangor, Maine	March 15-17	Passiac, N. J.	March 9-12
Bay City, Mich.	March 5-9	Pittsburgh	Feb. 19-26
Farmers Auto and Machinery Bldg.		Motor Square Garden	
Bethlehem, Pa.	Feb. 19-26	Quebec, Can.	March 1-8
Colosseum		Drill Hall	
*Boston, Mass.	March 5-12	Racine, Wis.	Feb. 16-20
Mechanics Bldg.		Memorial Building	
Casper, Wyoming	Feb. 21-24	Rocky Mount, N. C.	April 4-8
Colorado Springs, Colo.	Feb. 25-26	Tobacco Warehouse	
Municipal Auditorium		Saginaw, Mich.	March 9-12
Deadwood, S. D.	Feb. 21-26	San Bernardino, Cal.	Feb. 17-27
Auditorium		National Orange Show Bldg.	
Evansville, Ind.	March 8-12	Schenectady, N. Y.	Feb. 21-27
Coliseum		State Armory	
Fort Worth, Texas	March 5-13	Sheboygan, Wis.	Feb. 14-20
Fostoria, O.	Feb. 23-26	New Eagles Auditorium	
Hackensack, N. J.	Feb. 28-March 5	Sloux City, Iowa	March 3-6
Arcola Park		Auditorium	
Hartford, Conn.	Feb. 19-26	*Sioux Falls, S. D.	Feb. 23-26
State Armory		Springfield, Mass.	Feb. 28-March 5
Los Angeles	Feb. 26-March 3	Municipal Auditorium	
Washington Park, in four tents		*St. Louis, Mo.	Feb. 21-26
		Union Market Bldg.	
		Wichita, Kans.	Feb. 22-26
		Exposition Bldg.	
		Zanesville, O.	Feb. 28-Mar. 5

*Will have special shop equipment exhibit.

Races

A. A. A.

Altoona, Pa.	June 11
Altoona, Pa.	Sept. 5
Atlantic City	April 30
Atlantic City	Sept. 24
Charlotte, N. C.	May 9
Charlotte, N. C.	Nov. 11
Detroit	Sept. 10
Fresno, Cal.	April 21
Indianapolis	May 30
Los Angeles	Feb. 22
Los Angeles	April 10
Los Angeles	Nov. 27
Salem, N. H.	June 25
Salem, N. H.	Oct. 12
Syracuse, N. Y.	Aug. 27 or Sept. 3

Conventions

Automotive Equipment Association, Summer Convention, Multnomah Hotel, Portland, Ore.	June 27-July 2
Illinois Automotive Trade Association, Danville	March 15
National Association of Automobile Show and Association Managers, Drake Hotel, Chicago	July 26-27
North Carolina Automotive Trades Association, Asheville, N. C.	March 14-15
S. A. E.	
French Lick Spring, Ind.	May 25-28—Summer Meeting.

COMING FEATURE ISSUES OF CHILTON CLASS JOURNAL PUBLICATIONS

February 19—Automotive Industries—Ninth Annual Statistical Issue

French Registrations

PARIS, Jan. 15.—(By Mail)—French automobile and motor cycle registrations last year passed the million mark. Official returns are always a year late in coming out, but by taking the returns for the end of 1925 and semi-official figures for the year 1926, a total of 1,056,000 is obtained at the present time. This represents an increase of 150,000 passenger cars and trucks and 21,000 motor cycles. The detailed figures are 585,000 passenger cars, 290,000 trucks, 26,000 taxicabs and buses and 155,000 motor cycles.

Locate U. S. Highways

WASHINGTON, Feb. 12.—Final location of the 80,000 miles of the nation's most important roads, which will constitute the United States System of Highways was announced by the United States Bureau of Public Roads in Washington. Public announcement of the routes is being held up until maps can be completed. The system was given final approval by the American Association of State Highway Officials at its annual meeting just held at Pinehurst, N. C. Ten main transcontinental routes are included in the system.

To Have \$80,000 Home

EDINBURG, Texas, Feb. 12.—The Southtex Motor Company, Chrysler dealers here, is to have a new \$80,000 home. The new building will be 100 by 134 feet, will be two stories high and will be ready for occupancy by the first of May. The first floor will be devoted to offices and sales rooms while the second floor will be given over to housing the parts and space for complete repair service. J. O. Oliver is manager of the company.

Have You the Used Car Blues?

HERE'S medicine for the Used Car Blues. In next week's issue of MOTOR AGE there will be published an article entitled, "We Haven't Got the Used Car Blues," by a successful dealer. The gist of the article is "Buy 'em right or pass 'em up," but the writer gives some hows and whys that will open the eyes of all who read. And it will put money in the pockets of those who read and heed.

I.A.T.A. Meets March 15

PEORIA, Ill., Feb. 14.—The eighth annual convention of the Illinois Automotive Trade Association will be held at Danville, Tuesday, March 15, it is announced by C. W. Coons, manager. It is planned to hold an open forum meeting on the preceding evening for as many members as can be present at that time.

Election of officers will be held and a nominating committee has submitted the following nominations: For president, Wm. E. Johnston, Peoria; first vice pres., W. E. Butler, Chicago; second vice pres., Bennett Brant, Bushnell; third vice pres., Leonard Putnam, Ottawa; fourth vice pres., C. S. Winston, Joliet; treasurer, W. W. Yates, Bloomington.

G.M. Sets January Mark

NEW YORK, Feb. 14.—General Motors Corp. sales for January established a new high record with 100,000 vehicles as compared with 76,332 for January, 1925. This is particularly significant in view of the fact that January is normally the poorest month in the first quarter.

Prices and Weights of Current Passenger Car Models

SHIP				SHIP				SHIP				SHIP			
WT.	PASS.	BODY STYLE.	PRICE	WT.	PASS.	BODY STYLE.	PRICE	WT.	PASS.	BODY STYLE.	PRICE	WT.	PASS.	BODY STYLE.	PRICE
AUBURN				CHEVROLET "V"				DU PONT				HUPMOBILE			
"8-66"				"50"				"E"				"A-1"			
.....	2-4-p	Roadster	\$1,095	2145	5-p	Touring	\$ 750	3700	4-p	Roadster	\$2,800	2630	5-p	Touring	\$1,325
.....	5-p	Touring	1,145	2025	2-p	Roadster	750	3850	5-p	Touring	2,800	2660	2-4-p	Roadster	1,335
3040	5-p	Sport Sedan	1,195	2130	2-4-p	Roadster	795	3850	4-p	Coupe	3,200	2800	5-p	Sedan	1,385
3080	5-p	Sedan	1,295	2230	2-p	Coupe	750	4100	5-p	Sedan	3,400	2800	2-4-p	Coupe	1,385
3040	5-p	Wanderer Se'n	1,345	2335	5-p	Coach	780	.....	5-p	Conv't. Sedan	3,750	2890	5-p	Brougham	1,385
"8-77"				2410	5-p	Sedan	830	ELCAR				"E-3"			
.....	2-p	Roadster	\$1,395	2350	5-p	Landau Sedan	885	2580	4-p	Land. Rdster	\$1,475	3300	5-p	Touring	\$1,945
.....	5-p	Touring	1,445	CHRYSLER				2870	5-p	Brougham	1,295	3360	7-p	Touring	2,045
3350	5-p	Brougham	1,495	2145	5-p	Touring	\$ 750	2750	5-p	Sedan	1,395	3355	2-4-p	Roadster	2,045
3390	5-p	Sedan	1,695	2025	2-p	Roadster	750	"8-82"				3465	2-4-p	Coupe	2,345
3390	5-p	Wanderer Se'n	1,745	2130	2-4-p	Roadster	795	3320	2-4-p	Land. R'dster	\$1,870	3515	5-p	Brougham	2,245
"8-88"				2230	2-p	Coupe	750	3410	5-p	Brougham	1,595	3545	5-p	Sedan	2,345
(129 in. W. B.)	.....	.....	.....	2335	5-p	Coach	780	3490	5-p	Sedan	1,790	3525	5-p	Victoria	2,345
3180	4-p	Sp. Roadster	\$1,995	2410	5-p	Sedan	830	"8-90"				3360	7-p	Sedan	2,495
3200	5-p	Touring	2,045	2350	5-p	Landau Sedan	885	3675	7-p	Touring	\$2,265	3360	7-p	Sedan Lim.	2,595
.....	7-p	Touring	2,295	2570	5-p	Touring	\$1,075	3620	2-4-p	Land. R'dster	2,295	JORDAN			
3380	5-p	Sport Sedan	2,095	2545	2-p	Roadster	1,145	.....	2-4-p	Roadster	2,315	"R"			
3450	5-p	Sedan	2,195	2605	2-4-p	Roadster	1,175	.....	5-p	Brougham	2,195	.....	4-p	Sport Salon	\$1,595
3450	5-p	Wanderer	2,245	2720	2-p	Coupe	1,125	3895	5-p	Sedan	2,465	.....	2-p	Tomboy	1,595
(146 in. W. B.)				.....	3-5-p	Coupe	1,245	4245	7-p	Sedan	2,765	.....	5-p	Sedan	1,595
4200	7-p	Sedan	\$2,595	2795	5-p	Coach†	1,145	ERSKINE				"J-1"			
BUICK				2835	5-p	Sedan	1,245	.....	.....	.....	.....	2915	4-p	Playboy Road.	\$1,545
"115"				2845	2-4-p	Roadster	\$1,495	.....	5-p	Tourer	\$ 945	3070	2-4-p	Sport Coupe	1,695
2845	2-4-p	Roadster	\$1,195	2930	5-p	Phaeton	1,395	.....	2-p	Coupe	945	3200	4-p	Cus. Victoria	1,695
2955	5-p	Touring	1,225	2905	5-p	Sp. Phaeton	1,495	.....	5-p	Sedan	995	3200	5-p	Cus. Sedan	1,695
3020	2-4-p	Coupe	1,195	3000	2-4-p	Coupe	1,585	ESSEX				Series "AA"			
3150	5-p	2d. Sedan	1,195	3090	5-p	Brougham	1,525	.....	4-p	Speedster	\$ 750	3470	5-p	Cus. Sedan	\$2,495
3110	4-p	Coupe	1,275	3150	5-p	Royal Sedan	1,595	.....	2-p	Speedster	735	3470	4-p	Cus. Victoria	2,495
3230	5-p	4d. Sedan	1,295	2935	2-4-p	Cabriolet	1,745	2450	5-p	Coach	735	KISSEL			
.....	5-p	Town Bro'm	1,375	3160	5-p	Crown Sedan	1,795	2510	5-p	Sedan 4d.	785	"6-55"			
"120"				"80"				FLINT				(124 in. W. B.)			
(120 in. W. B.)	.....	.....	.....	(185½ in.)*				2450	5-p	Coach	735	3030	5-p	Phaeton	\$1,685
3800	4-p	Coupe	\$1,465	3925	5-p	Phaeton	\$2,495	2340	2-p	Coupe	735	3160	4-p	Speedster	1,895
3670	5-p	2d. Sedan	1,395	3805	2-4-p	Roadster	2,595	2510	5-p	Sedan	785	.....	4-p	Coupe R'dster	1,895
3765	5-p	4d. Sedan	1,495	4220	5-p	Coupe	3,095	"Z-18"				3300	5-p	Brougham	1,695
"128"				4260	5-p	Sedan	3,095	2450	5-p	Coach	735	.....	5-p	Spec. Bro'm	1,795
(128 in. W. B.)	.....	.....	.....	(192½ in.)*				2580	5-p	DeL. Coach	1,075	3440	5-p	Bro'm Sedan	1,895
3570	4-p	Sp. Roadster	\$1,495	4090	4-p	Coupe	\$2,895	2745	4-p	Roadster	\$1,360	.....	5-p	Conv't Bro'm	2,295
3635	5-p	Sp. Touring	1,525	4065	2-p	Cabriolet	3,495	2750	5-p	Touring	1,260	(131 in. W. B.)			
3805	4-p	Country Club	1,765	(198½ in.)*				2885	4-p	Sp. Roadster	1,495	3660	7-p	Touring	\$1,785
.....	5-p	Coupe	1,850	4450	7-p	Sedan	\$3,995	2890	4-p	Coupe R'dster	1,495	3225	4-p	Tourster	1,895
3940	5-p	Brough. Sedan	1,925	4260	7-p	Sedan Lim.	3,595	3030	5-p	Sedan 4d.	1,495	.....	5-p	Spec. Bro'm	2,095
4085	7-p	Sedan	1,995	4265	5-p	Town Car	5,495	3010	5-p	Brougham	1,450	.....	7-p	Sedan	2,095
CADILLAC				"Cloth Upholstery. Leather at extra cost."				(120 in. W. B.)				"8-65"			
"314" Standard Line				*Overall length.				3335	4-p	Roadster	\$1,645	(125 in. W. B.)			
(132 in. W. B.)				CUNNINGHAM				3245	5-p	Touring	1,450	.....	5-p	Phaeton	\$1,835
4170	5-p	Brougham	\$2,995	"V-7"				3395	4-p	Sp. Touring	1,645	.....	4-p	Speedster	2,095
4105	2-p	Coupe	3,100	4500	4-p	Sp. Touring	\$6,150	3500	4-p	Coupe	1,850	.....	4-p	Coupe R'dster	2,095
4190	5-p	Victoria	\$3,195	4600	7-p	Touring	6,650	3625	5-p	Sedan	1,925	.....	5-p	Brougham	1,895
4270	5-p	Sedan	3,250	4700	4-p	Coupe	7,600	(130 in. W. B.)				.....	5-p	Spec. Bro'm	1,995
4460	2-p	Sport Coupe	3,500	5000	6-p	Limousine	\$1,100	3780	7-p	Sedan	\$2,125	.....	5-p	Bro'm Sedan	2,095
4590	6-p	Sport Sedan	3,650	DAGMAR				"6-70"				.....	5-p	Conv't Bro'm	2,495
(138 in. W. B.)				3750	4-p	Roadster	\$3,500	"60"				(132 in. W. B.)			
4220	2-p	Roadster	\$3,350	3800	4-p	Sp. Tourer	3,500	3150	5-p	Touring	\$1,785	.....	7-p	Touring	\$1,985
4300	2-p	Conv't Coupe	3,450	3700	4-p	Phaeton	3,500	3100	2-p	Roadster	1,985	.....	4-p	Tourster	2,095
(138 in. W. B.)				4200	4-p	Petite Coupe	4,500	3200	4-p	Sp. Touring	1,985	.....	5-p	Spec. Bro'm	2,295
4285	7-p	Touring	\$3,450	4200	4-p	Petite Sedan	4,500	3500	4-p	Coupe	1,850	.....	7-p	Sedan	2,495
4275	5-p	Phaeton	3,450	4500	4-p	De Luxe Coupe	4,750	"6-60"				"8-75"			
4705	5-p	Sp. Phaeton	3,975	4700	5-p	Sedan	4,700	3150	5-p	Touring	\$1,785	(131 in. W. B.)			
4465	5-p	Coupe	3,855	4800	7-p	Sedan	4,750	3230	5-p	Sedan	2,790	3220	5-p	Phaeton	\$2,185
4465	5-p	Sedan	3,995	"6-60"				3165	4-p	Victoria	2,740	3360	4-p	Speedster	2,395
4680	7-p	Suburban	4,125	3100	2-p	Roadster	1,985	3230	5-p	Sedan	2,840	.....	4-p	Coupe R'dster	2,395
4615	7-p	Imperial	4,350	3200	4-p	Sp. Touring	1,985	3230	5-7-p	Sedan	2,840	3565	5-p	Brougham	2,195
CASE				3500	5-p	Sedan	2,445	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
J. I. C.				DAVIS				3230	5-p	Sedan	2,790	3760	5-p	Bro'm Sedan	2,395
3290	5-p	Touring	\$1,885	2915	5-p	Legion, Tour.	\$1,395	3230	5-p	Sedan	2,790	.....	5-p	Conv't Bro'm	2,495
3640	5-p	Sedan	2,590	3000	5-p	Sedan	1,595	3230	5-p	Sedan	2,790	.....	7-p	Sedan	2,795
"X"				3055	5-p	Imperial Sedan	1,795	3230	5-p	Sedan	2,790	(132 in. W. B.)			
3950	7-p	Touring	\$2,225	"94-27"				3230	5-p	Sedan	2,790	.....	4-p	Tourster	2,095
CHANDLER Big Six				2350	5-p	Roadster	\$1,245	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
3200	2-4-p	Roadster	\$1,695	2500	5-p	Touring	1,285	3230	5-p	Sedan	2,790	.....	7-p	Sedan	2,495
3330	5-p	Touring	1,545	2570	5-p	Sedan	1,285	3230	5-p	Sedan	2,790	.....	4-p	Tourster	2,095
3345	7-p	Touring	1,645	2375	3-p	Coupe	1,285	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
3570	5-p	20th C'y Sedan	1,495	.....	5-p	Imp. Sedan	1,385	3230	5-p	Sedan	2,790	.....	7-p	Sedan	2,795
3570	5-p	Met. Sedan	1,595	DIANA "St. 8"				3230	5-p	Sedan	2,790	.....	4-p	Tourster	2,095
3485	4-p	Coupe	1,675	2995	5-p	Roadster	\$1,795	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
3570	5-p	De Luxe Sedan	1,695	2995	5-p	Palm Bch. Rda.	1,995	3230	5-p	Sedan	2,790	.....	7-p	Sedan	2,795
3725	7-p	Sedan	1,895	3170	5-p	DeL. Bro'm	1,995	3230	5-p	Sedan	2,790	(139 in. W. B.)			
Standard Six				3275	5-p	De Luxe Sedan	2,195	3230	5-p	Sedan	2,790	3630	7-p	Touring	\$2,285
(108½ in. W. B.)				3160	5-p	Cabriolet	2,095	3230	5-p	Sedan	2,790	3335	4-p	Tourster	2,395
2475	5-p	Touring	\$ 945	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
2565	5-p	De Luxe Tour.	1,005	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	7-p	Sedan	2,795
2470	2-4-p	Sport R'dster	1,135	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	4-p	Tourster	2,095
2685	5-p	Sedan	995	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
2620	2-p	Coupe	1,035	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	7-p	Sedan	2,795
2685	5-p	De Luxe Sedan	1,095	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	4-p	Tourster	2,095
2620	2-p	De Luxe Coupe	1,125	3640	7-p	Sedan (135 in. W. B.)	2,695	3230	5-p	Sedan	2,790	.....	5-p	Spec. Bro'm	2,295
Special Six				DODGE BROTHERS				3450	4-p	Roadster	\$1,995	4080	7-p	Sedan De Luxe	3,495
(115 in. W. B.)				2448	2-p	Roadster	\$ 795	3475	4-p	Landau Rdstr.	2,295	4125	7-p	Ber. Sed. DeL.	3,585
2890	5-p	Touring	\$1,145	2541	2-p	Spec'l Roadster	845	3690	5-p	Brougham	2,295	LINCOLN "8"			
2940	5-p	Sport Touring	1,295	2584	5-p	Touring	795	3730	5-p	Sedan	2,295	4760	2-p	Sport R'dster	\$4,700
2995	2-p	Coupe	1,195	2669	5-p	Spec. Touring	845	3755	5-p	Victoria	2,295	4810	7-p	Sport Touring	4,700
2995	2-p	De Luxe Coupe	1,285	2604	2-4-p	Sport Roadster	945	HUDSON				4880	4-p	Sport Phaeton	4,700
3230	5-p	Sedan	1,295	2653	2-4-p	Sport Touring	880	3505	5-p	Coach	\$1,285	4610	4-p	Coupe	4,700
"Royal Str. 8"				2653	2-4-p	Sport Touring	880	.....	5-p	Sedan	1,385	4880	4-p	Sport Phaeton	4,700
.....	5-p	Touring	\$2,050	2653	2-4-p	Sport Touring	880	"Std. Line"				4880	4-p	Sport Phaeton	4,700
.....	7-p	Touring	2,195	2653	2-4-p	Sport Touring	880	.....	5-p	Sedan	1,385	4880	4-p	Sport Phaeton	4,700
.....	4-p	Roadster	2,195	2653	2-4-p										

Prices and Weights of Current Passenger Car Models


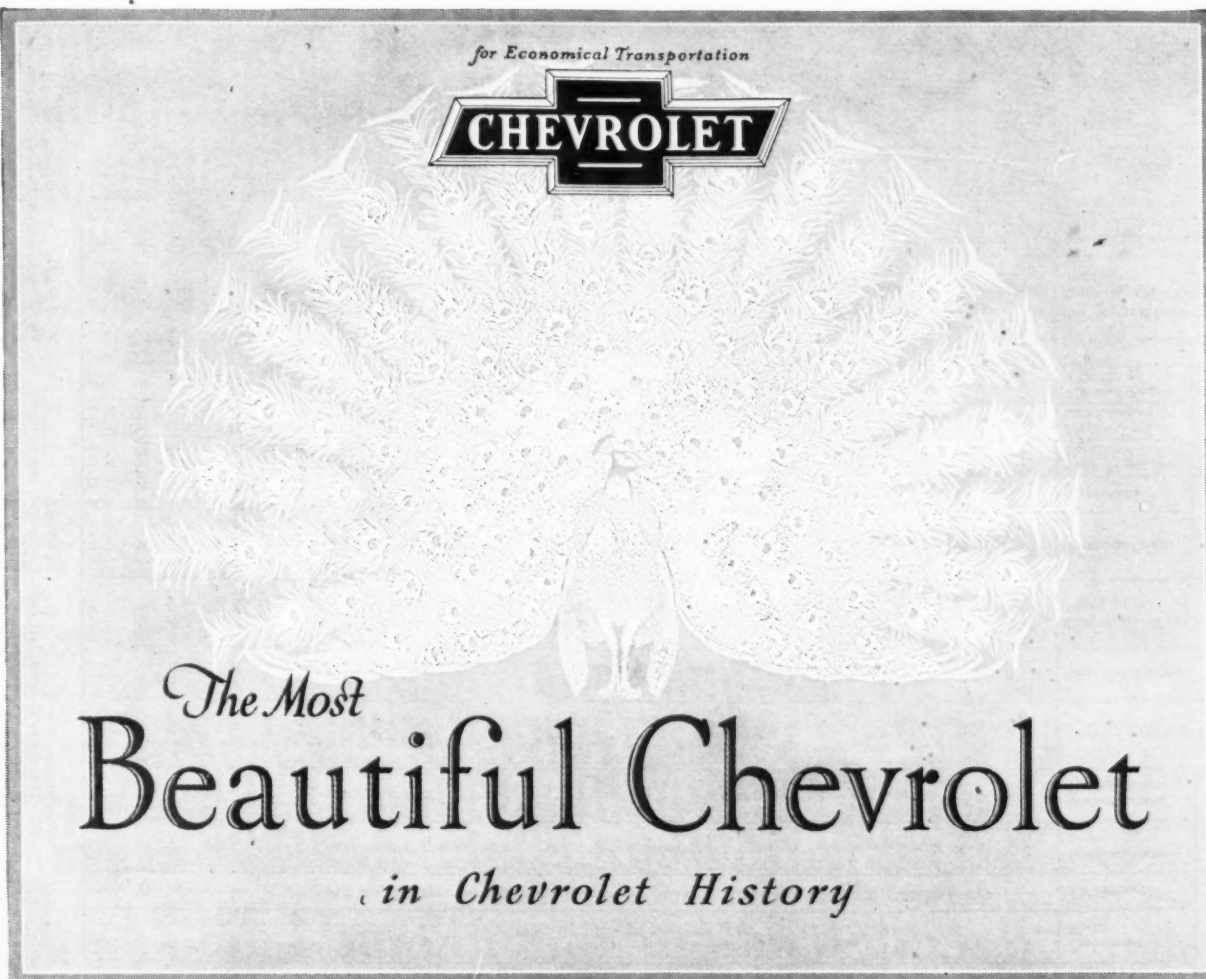
SHIP WT. PASS. BODY STYLE. PRICE	SHIP WT. PASS. BODY STYLE. PRICE	SHIP WT. PASS. BODY STYLE. PRICE	SHIP WT. PASS. BODY STYLE. PRICE
LOCOMOBILE—Continued "48"	OLDSMOBILE "30E"	"8-69" (133½ in. W. B.)	"G-8"
5030 4-p Sportif \$7,460	2335 5-p Touring \$ 875	3850 2-4-p Roadster \$2,995	4235 2-p Roadster \$3,850
5330 7-p Touring 7,460	2490 5-p Sp. Touring 980	4125 5-p Sedan 3,095	4325 4-p Touring 3,850
5640 7-p Touring Lim. 9,500	2317 4-p DeL. Roadster 975	4200 7-p Sedan 3,495	4457 4-p Coupe Cabriolet Rdter 4,250
5600 5-p Victoria Sed. 10,050	2450 2-p Coupe 925	4275 5-p Ber. Limousine 3,795	4565 5-p Sedan 4,350
5464 6-p Brougham 10,040	2570 5-p Coach 950		4555 7-p Sedan 4,450
5868 7-p Enc. Dr. Lim. 10,050	2538 2-p DeLux Coupe 990		4700 7-p Limousine 4,650
5624 7-p Cabriolet 10,300	2720 5-p Sport Coupe 1,035		4850 5-p Sedan Lim. 4,550
	2625 5-p DeLux Coach 1,050		
McFARLAN	2780 5-p Sedan 1,025		
"TV"	2780 5-p DeLux Sedan 1,125		
4000 2-p Roadster \$5,800	2780 5-p Landau 1,190	PIERCE-ARROW	STUDEBAKER
4600 4-p Sp. Touring 5,600		"80"	Standard Six
4900 4-p Coupe 6,720		3285 2-p Runabout \$2,895	2965 3-p Du. Roadster \$1,160
5200 4-p Tour. Sedan 6,720		3300 4-p Phaeton 3,095	3030 3-p Sport Roadster 1,250
5200 7-p Tour. Sedan 6,810		3440 7-p Phaeton 2,895	3095 5-p Du. Phaeton 1,180
5200 7-p Sedan 6,810		3470 5-p Coach 2d. 2,995	3140 3-p Country Club 1,295
5200 7-p Spec. Sedan 6,810		3525 2-p Coupe 3,105	3210 5-p Coach 1,230
5200 7-p Enc. Sedan 7,110		3525 2-p Coach 4d. 3,250	3115 5-p Sedan 1,330
5200 7-p Sub. Sedan 7,110		3620 7-p Coach 3,850	3235 5-p Custom Sedan 1,385
5200 7-p Town Car 9,000		3420 4-p Coupe 3,695	3180 4-p Cus. Victoria 1,335
		3500 5-p Sedan 3,895	
"Straight 8"		3600 7-p Sedan 3,995	Special Six
4400 5-p Touring 2,650		3655 7-p Enc. Dr. Lim. 4,045	3480 2-4-p Sp. Roadster \$1,630
4400 7-p Touring 2,750		3675 7-p Lim. Coach 3,450	3495 5-p Du. Phaeton 1,480
4400 7-p Roadster 3,050			3470 5-p Coach 1,480
4650 5-p Sedan 3,180			3620 5-p Brougham 1,830
4650 5-p Sub. Sedan 3,380			
3700 7-p Sedan 3,280			Big Six
3700 7-p Sub. Sedan 3,480			(120 in. W. B.)
3650 4-p Coupe 3,180			3445 3-p Du. Roadster \$1,530
3650 5-p Coach Brough. 3,180			3485 2-4-p Sport Roadster 1,680
3750 5-p Town Car 4,600			3580 5-p Sport Phaeton 1,610
			3510 5-p Club Coupe 1,480
MARMON			3705 4-p Cus. Victoria 1,735
"Little Marmon"			3835 5-p Custom-Bro'm 1,785
2-p Speedster \$1,895			
4-p Speedster 1,955			(127 in. W. B.)
2-p Coupe 1,895			3720 7-p Du. Phaeton \$1,810
5-p Sedan 2d. 1,795			3910 5-p Brougham 4d. 2,130
5-p Sedan 4d. 1,895			4050 7-p The President 2,345
4-p Brougham 1,895			
Custom Sedan 2,595			STUTZ
Cus. Victoria 2,595			"AA"
Cus. Town Cab 3,125			(131 in. W. B.)
			4058 2-4-p Speedster \$3,150
"E-75"			4175 4-p Speedster 2,160
1251 2-p Speedster \$3,485			4334 5-p Brougham 3,195
4256 4-p Speedster 3,485			4340 5-p Sedan 3,195
4017 5-p Phaeton 3,485			4176 4-p Vic. Coupe 3,175
4480 7-p Tour. Speedster 3,565			4182 2-4-p Coupe 2,165
4374 2-p Coupe R'dster 3,565			5-p Landau Sed. 3,345
4452 5-p Town Coupe 3,195			
4373 2-p Coupe 3,485			(145 in. W. B.)
4346 4-p Victoria 3,485			4566 5-p Tour. Bro'm \$3,685
4625 5-p Brougham 3,565			4656 7-p Sedan 3,685
4498 5-p Sedan 3,565			4731 7-p Sedan Lim. 3,785
4420 7-p Sedan 3,640			
4515 5-p Custom Sedan 3,960			"AA De Luxe"
4678 7-p Custom Sedan 4,075			(131 in. W. B.)
4718 7-p Custom Lim. 4,175			2-p DeL. Speedst'r \$3,350
			4-p DeL. Speedst'r 3,260
MOON			2-p Coupe 2,265
"6-80"			4-p Vict. Coupe 3,375
2295 3-5-p Roadster \$ 995			5-p Brougham 3,320
2330 5-5-p DeL. Roadster 1,095			5-p Sedan 3,320
2340 5-p Phaeton 995			5-p Landau Sed. 3,470
2420 5-p Coach 1,045			
2520 5-p Std. Brough. 1,145			(145 in. W. B.)
2575 5-p Cab. Roadster 1,195			5-p Tour. Bro'm \$3,335
2520 5-p Royal Bro'm 1,195			7-p Sedan 3,335
2605 5-p 4d. Sedan 1,245			7-p Sed. Lim. 3,910
2605 5-p Royal Sedan 1,295			
			"AA Custom

Mechanical Specifications of Current Passenger Car Models

This list comprises cars distributed on a national basis

MAKE AND MODEL										ENGINE										ELECTRICAL SYSTEM		CLUTCH—Type and Make		GEAR SET—Make		UNIVERSAL—Type and Make		REAR AXLE		BRAKES		STEERING GEAR—Make		REAR SPRINGS—Type and Length		CHASSIS LUBRICATION—Type and Make		ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS																			
																				Ignition System		Generator and Starter Make						Type and Make		Gear Ratio		Foot—Type and Location		Hand—Type and Location		Wheel Type																					
																				Air Cleaner?		Carburetor		Thermostat?		Cooling System		Oil Cleaner?		Crankshaft Vib. Damper		No. Main Bear.		Piston Material		Camshaft Drive		Valve Arrangement		Piston Displacement		Ratd H.P.		N.A.C.C. Placement		Bore and Stroke		Model		Number of Cyls.		Tire Size		Wheel Base (Inches)			
Auburn.....	6-66	120	29x5 25	Con.....	28L	6-27x4 3/4	19.8	185	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.9	B-F-E-T	Ross	5-50 3/4	Pr-Al	A-K—Atwater Kent																										
Auburn.....	8-77	125	29x5 25	Lyc.....	4HM	8-31x4 1/2	24.2	226	Ch. Cl.	Ch. Cl.	5	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	A-L—Auto-Lite																										
Auburn.....	8-88	129-146	31x6 00	Con.....	31A	6-31x4 1/2	33.3	205	Ch. Cl.	Ch. Cl.	5	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	Al—Alameda																										
Buick.....	115	114 1/2	31x5 75	Con.....	31A	6-31x4 1/2	29.4	274	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	Al—Alameda																										
Buick.....	120 & 128	120-128	33x6 00	Con.....	31A	6-31x4 1/2	29.4	274	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Cadillac.....	314	132-138	33x6 00	Con.....	31A	6-31x4 1/2	31.2	314	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Case.....	JIC	132	34x7 30	Con.....	31A	6-31x4 1/2	33.3	274	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Case.....	124	124	33x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chandler.....	Big 6	124	33x6 00	Con.....	31A	6-31x4 1/2	29.4	289	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chandler.....	Sidd 6	108 1/2	30x4 75	Con.....	31A	6-31x4 1/2	21.6	180	Ch. Cl.	Ch. Cl.	3	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chandler.....	Spec 6	115	31x5 25	Con.....	31A	6-31x4 1/2	22.4	219	Ch. Cl.	Ch. Cl.	3	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chandler.....	Royal St. 8	124	33x6 00	Con.....	31A	6-31x4 1/2	32.5	303	Ch. Cl.	Ch. Cl.	5	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chrysler.....	V	103	29x4 40	Con.....	31A	6-31x4 1/2	21.8	171	Ch. Cl.	Ch. Cl.	3	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chrysler.....	"80"	185-198 1/2	30x6 75	Con.....	31A	6-31x4 1/2	29.4	288	Ch. Cl.	Ch. Cl.	7	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chrysler.....	"50"	153 1/2	29x4 75	Con.....	31A	6-31x4 1/2	21.0	170	Ch. Cl.	Ch. Cl.	8	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chrysler.....	"60"	156 1/2	28x5 25	Con.....	31A	6-31x4 1/2	21.0	180	Ch. Cl.	Ch. Cl.	8	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Chrysler.....	"70"	102 1/2	30x6 00	Con.....	31A	6-31x4 1/2	23.4	218	Ch. Cl.	Ch. Cl.	7	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Cummins.....	6-70	132-142	33x6 75	Con.....	31A	6-31x4 1/2	45.0	224	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	6-60	120	32x6 20	Lyc.....	4HM	8-31x4 1/2	25.3	224	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	6-70	138	33x5 1/2	Con.....	31A	6-31x4 1/2	33.3	231	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	92-27	115	32x6 00	Con.....	31A	6-31x4 1/2	25.3	231	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	94-27	110	29x4 05	Con.....	31A	6-31x4 1/2	10.8	185	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	St. 8	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	28.8	240	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	116	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N	N	Sch	N	N	N	N	Long	War	m-U-P	Col	4.7	B-F-E-T	Ross	5-50 3/4	Pr-Al	B-B—Borg & Beck																										
Daimler.....	125 1/2	125 1/2	32x6 00	Con.....	31A	6-31x4 1/2	27.3	242	Ch. Cl.	Ch. Cl.	4	Y	PK	Pd	N</																																										

for Economical Transportation

The Most
Beautiful Chevrolet
in Chevrolet History

The Greatest Public Reception Ever Given a New Line of Automobiles

Featured by marvelous new Fisher bodies, by a host of mechanical improvements and offered at amazing low prices, the Most Beautiful Chevrolet has been accorded the most enthusiastic reception ever given a new automobile.

Never in history has any line of new cars ever won so many buyers in so short a time.

This tremendous buying activity is all based on sheer value supremacy. No other cars of amazing low price ever offered such arresting beauty, such thrilling performance, such modern design or such fine quality construction. Buyers instantly sense this fact. Extended compari-

sons are not necessary. And Chevrolet dealers are making their sales quickly and on a highly profitable basis.

The public reception of the Most Beautiful Chevrolet is only another example of why the Chevrolet franchise is so highly regarded. For Chevrolet is building a worldwide organization of uniformly strong and successful dealers not merely by continually assisting them in better selling methods — but also by always giving them a car that best meets the public demand for modern design, appearance and performance at low price.

Touring or Roadster \$525, Coach \$595, Coupe \$625, Sedan \$695, Sport Cabriolet \$715, Landau \$745, 1/2-Ton Truck \$395 (Chassis only). 1-Ton Truck \$495 (Chassis only).

Balloon tires standard equipment on all models. All prices f. o. b. Flint, Mich.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
 Division of General Motors Corporation

Q U A L I T Y A T L O W C O S T

Mechanical Specifications of Current Passenger Car Models—Continued (From page 40)

MAKE AND MODEL			ENGINE										ELECTRICAL SYSTEM			REAR AXLE			BRAKES			STEERING GEAR—Type and Make			Rear Springs—Type and Length			Chassis and Make			ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS		
Wheel Base (Inches)	Tire Size	Model	Bore and Stroke	Rated H.P.	Valve Displacement	Camshaft Drive	Piston Material	No. Main Bear.	Crankshaft Vib'n	Oiling System	Oil Cleaner?	Cooling System	Thermostat?	Radiator	Shut-off?	Carburetor	Air Cleaner?	Ignition System	Generator and Starter Make	Clutch—Type and Make	Universal—Type and Make	Type and Make	Gear Ratio	Foot—Type and Location	Hand—Type and Location	4 Wheel Type	Steering Gear—Make	Rear Springs—Type and Length	Chassis and Make	ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS			
8-66	30x5.77	Own. 8-P	8-31x4 1/4	25.3	139	I	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	N	Str.	Y	Delo.	Delo.	P.B&B.	War	m-U-M.	1 1/2 Ada.	4 7/8	I-F	I-R	Se	War.	5-58 1/2	Pr-Ze.	A-K—Atwater Kent		
8-80	32x6.00	Lye Spe.	8-31x4 1/4	33.8	299	T	Ch. Al.	9	Y	P.C.	4	Pu.	Y	N	Str.	Str.	Y	Delo.	Delo.	P.B&B.	War	m-Spi.	1 1/2 Sul.	4 1/8	I-F	I-R	Se	Ros.	5-58 1/2	Pr-Ze.	A-L—Auto-Life		
48	33x6.75	Own.	8-41x5 1/4	48.6	325	T	Ch. Cl.	7	Y	P.C.	4	Pu.	Y	N	Bal.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	A-L—Alumite		
90	33x6.75	Own.	8-41x5 1/4	30.0	372	T	Ch. Cl.	5	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B&B—Borg and Beck		
Little	29x5.25	Own.	8-23x4 1/4	24.2	190	I	Ch. Al.	5	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
E-75	32x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
St. 8	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
McFarlan	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Series A	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Moan	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Light Six	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Advanced	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
Nash	33x6.75	Own.	8-31x4 1/4	33.8	299	T	Ch. Cl.	9	Y	P.C.	4	Pu.	Y	N	Str.	N	Y	Delo.	Delo.	P.Own.	Own.	m-Spi.	3/4 Est.	3 5/8	I-F	I-R	Se	Ros.	5-60	Pr-Ze.	B-L—Brown-Lipe		
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STEWART-WARNER

Largest Manufacturers of Motor Car Accessories in the World



Stewart-Warner Bumpers are all-steel, finished in a heavy lustrous nickel, and approved by the Underwriters' Laboratories. Furnished in two and three rail models.

Make Additional Profits On Every Car Sale

THE dealer who makes an effort to sell a set of bumpers with every car sold finds a considerable increase in his profit column at the end of the year.

Stewart-Warner offers you a complete line of bumpers and fender guards that requires no time-consuming selling effort. The name Stewart-Warner is known to motorists everywhere.

Our engineers have worked out installations that are easily and quickly made so that your service men may take care of a job in "short order."

There is a Stewart-Warner Products Service Station near you that can save you time and money on delivery. Every station carries a complete stock. The Stewart-Warner representative has an interesting proposition to offer you on bumpers. You will want to talk with him.

When you handle Stewart-Warner Products, Bumpers, Shock Absorbers, Windshield Cleaners, etc., you have behind you the largest accessory manufacturing organization in the world. A complete line of quality accessories—all under one reliable, nationally-known name—one place to turn to for new stock—one place to turn to for service. As a Stewart-Warner dealer, you save time and make more money.

Stewart-Warner

BUMPERS
FENDER GUARDS
SPEEDOMETERS
SHOCK
ABSORBERS
WINDSHIELD
CLEANERS
HEATERS
SPOTLIGHTS
HORNS

Stewart-Warner

A Special Display Division at Your Service

Stewart-Warner maintains a special Display Division for the benefit of our dealers. The display units designed and offered the trade are unequalled in the automotive field. If this Display Division can be of any help to you at any time in designing your display windows or show-rooms or in planning your displays, do not hesitate to write us. Address your letters to the Advertising Department, Display Division.

Cash in on this Parts Business

Dealers who carry a line of Stewart-Warner Speedometer and Vacuum Tank Replacement Parts find it to be a source of considerable revenue. These attractive cabinets when displayed on your counter will get the attention of motorists and bring you business that is well worth having. They may be obtained through the Stewart-Warner Service Station that serves your territory.



STEWART-WARNER SPEEDOMETER COR'N, CHICAGO, U.S.A.

—A New Low-Priced PEERLESS *The Six-60*

SPECIFICATIONS

Wheel Base—116 inches.

Engine—Peerless 6-cylinder, high speed, high efficiency. Bore, $3\frac{1}{4}$ ". Stroke, 4". Piston displacement, 199.1 cubic inches. S. A. E. rating 25.35 H. P. Actual Brake H. P.—62 at 3000 R. P. M.

Crankshaft—7-bearings, $2\frac{1}{8}$ " in diameter.

Brakes—Peerless Lockheed Hydraulic.

Tires—Balloons cords 29 x 5.25.

Steering—Cam and lever semi-reversible type with variable pitch of cam screw which makes turning exceptionally easy.

Body Types—Attractive, up-to-date body styles to choose from.

ANOTHER wonderful Peerless—another advance in designing—another leader in value—another sales opportunity for Peerless dealers.

That's what the Six-60 means. And from the dealer's standpoint, here's something else to think about.

The addition of this low-priced Peerless makes Peerless one of the most complete and most saleable lines of cars ever built in one factory and sold under one name.

Four fine Sixes—and the famous 90° V-type Eight-69. That's what Peerless is building for you today.

Prices ranging from around \$1300 to \$3795—literally a Peerless for every purse.

Do you wonder that we say, that after 25 years of marked success in the automobile business, Peerless is just getting under way. The record smashing year of 1926 merely indicates greater things for 1927.

Hundreds of progressive dealers and distributors have already seen the handwriting on the wall. It says "Peerless"—unmistakably.

PEERLESS MOTOR CAR CORPORATION • Cleveland, Ohio

Manufacturers of the famous 90° V-type Eight-69, the Remarkable Six-80, the Powerful Six-72, the New Six-90 and the Six-60

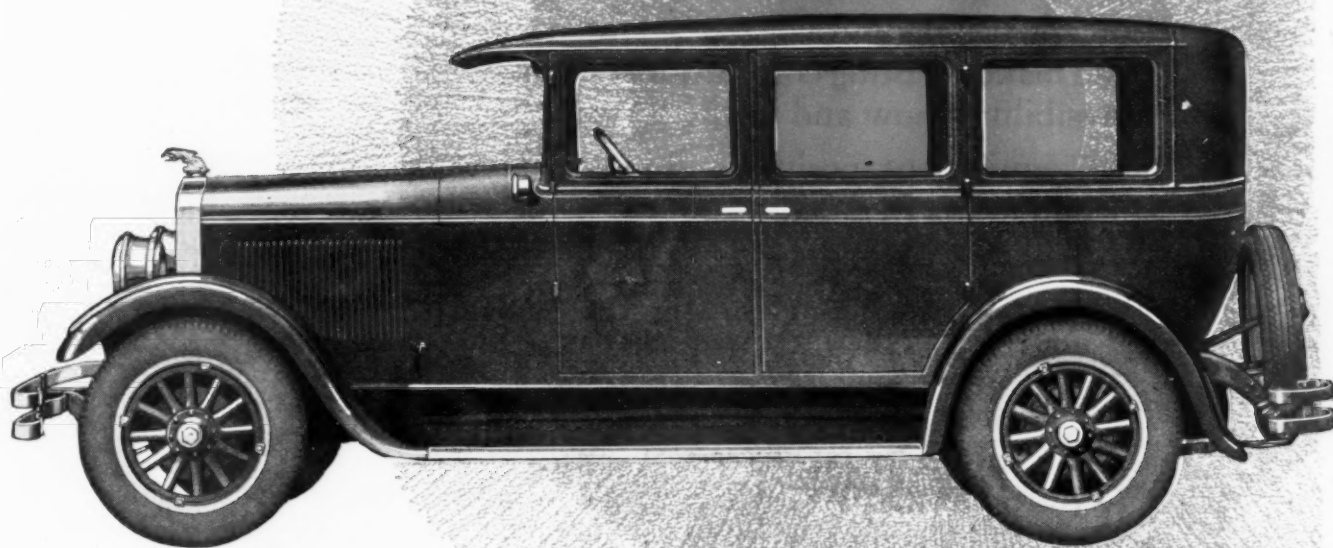
(All prices f. o. b. factory)



PEERLESS

HAS

ALWAYS



WRITE, wire or phone for details of this valuable Peerless franchise. You will find them intensely interesting—and profitable. Act now, while the year is still young.

BEEN · A · GOOD · CAR

Why You Will Want to Be an AC Dealer

In selling AC Products, the dealer establishes a contact which ties his business to a most powerful organization and makes a lasting connection, insuring enormous business possibilities now and in the future.

AC equipment, positive and increasing from year to year, is building a tremendous replacement business which will carry on and grow as long as the industry lasts.

No competitive lines can offer the volume and consequent profit that AC does and none of them can show such a guaranty for the future.

Practically every make of car now uses one or more, or all AC Products as factory equipment—among these makers being such firms as Buick, Cadillac, Chandler, Chevrolet, Chrysler, Flint-Star, Hudson-Essex, Nash, Oakland-Pontiac, Oldsmobile, Paige-Jewett and Willys-Overland.

There is no question about the quality of AC Spark Plugs and other AC Products.

There is no question as to the sales possibilities.

Practically every motorist wants AC Products, because through their extensive use as original equipment, owners know AC quality and are satisfied users.

That's why it is good policy for dealers to establish their business on a line that gives them not only a profit, but a guaranty for the future.

AC Spark Plug Company, FLINT, *Michigan*

AC-SPHINX
Birmingham
ENGLAND

Makers of AC Spark Plugs—AC Speedometers—AC Air
Cleaners—AC Oil Filters—AC Gasoline Strainers

AC-TITAN
Levallois-Perret
FRANCE

Over 200 of the world's most successful manufacturers use one or more, or all of these AC Products

AC

SPARK PLUGS

AC

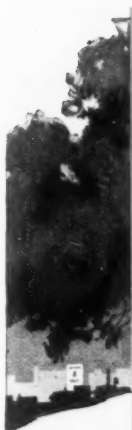
SPEEDOMETERS

AC

AIR CLEANERS

AC

OIL FILTERS



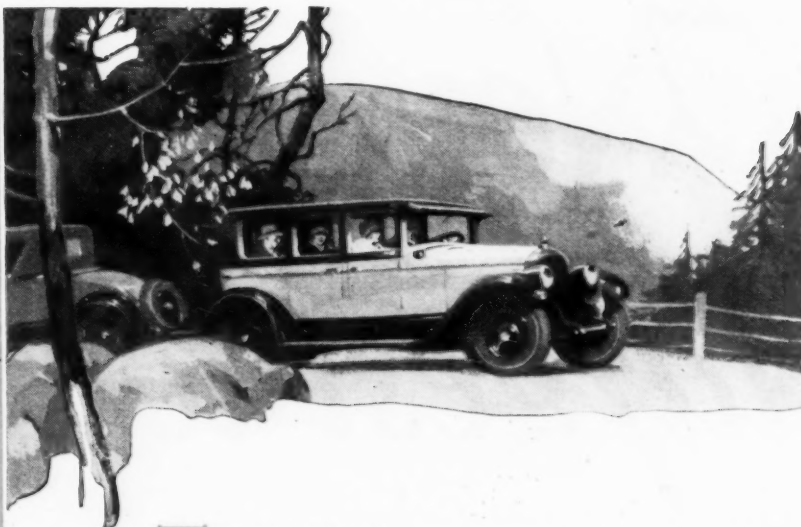
INDIA Balloons
(Patented Construction)
Comfort and long wear—
ideally combined



INDIA Heavy Service
"The most favorably talked
about heavy service tire
in America today."



INDIA True-Blue
(HEAT-PROOF) Inner Tube
The first to successfully overcome pre-
mature aging caused by high heat
of present low-pressure, high-
speed running conditions.



TIRES ARE JUST TIRES— UNTIL YOU TRY AN INDIA

Tires are tires! Yet one holds under grinding wear and punishing heat. Another blows out. Why the difference?

Because the tire that stands the grind—in addition to rubber and fabric and skilled workmanship—has built into it an ideal. No other ingredient counts so much in mileage.

The India business was founded on an ideal—"to Make the Best Tire it is Possible to Make." No effort has been spared to do this. Consequently, the India line has exclusive features—easily demonstrated advantages—which put India tires years ahead of the tires with which most bus and truck and car owners are familiar.

The Gum-Weld Cushion reduces friction (heat), overcomes "tread separation" and cushions road shocks more softly over the entire carcass of the tire.

The patented construction of India Balloons and Bus Balloons combines complete flexibility of sidewalls with long wear and freedom from punctures.

The India True-Blue (HEAT-PROOF) inner tube is the first to successfully overcome "burning-up" of tubes from the high heat of present low pressure, high speed running conditions.

These exclusive features give India dealers something tangible with which to get and hold the best of the tire replacement business.

So India dealers are unusually successful.

INDIA TIRES



INDIA TIRE & RUBBER CO.

AKRON, O.

Now every largest to smallest

BIFLEX, at this period of its growth, has reached the highest peak in manufacturing efficiency. It is for this reason that Biflex now is able to offer all dealers a striking new proposition that will permit them to sell the best bumpers built at profits more interesting than ever. Now every dealer—from largest to smallest—will want Biflex.

Biflex and Halladay Bumpers are now wholly built in the two largest factories in the world, devoted exclusively to the making of bumpers. They are sold through *one* sales organization, operated under *one* management. Modern *forging, polishing and plating* methods enable Biflex not only to maintain quality but to effect great and far reaching economies.

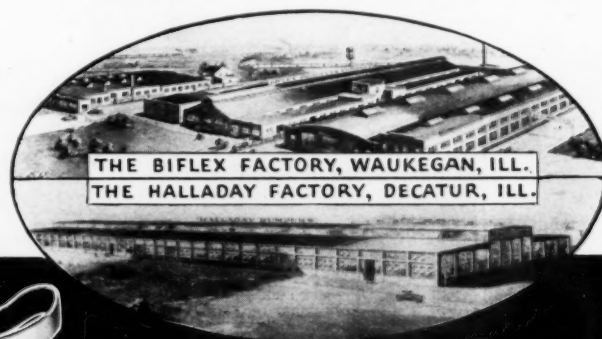
In a word, Biflex like the larger car manufacturers, has reached that point in production where the consumer is given the *greatest value* and the dealer the greatest profit!

Car owners are demanding greater protection. Because these bumpers are *cushion-built of spring steel under tension*, they actually *do give greater protec-*

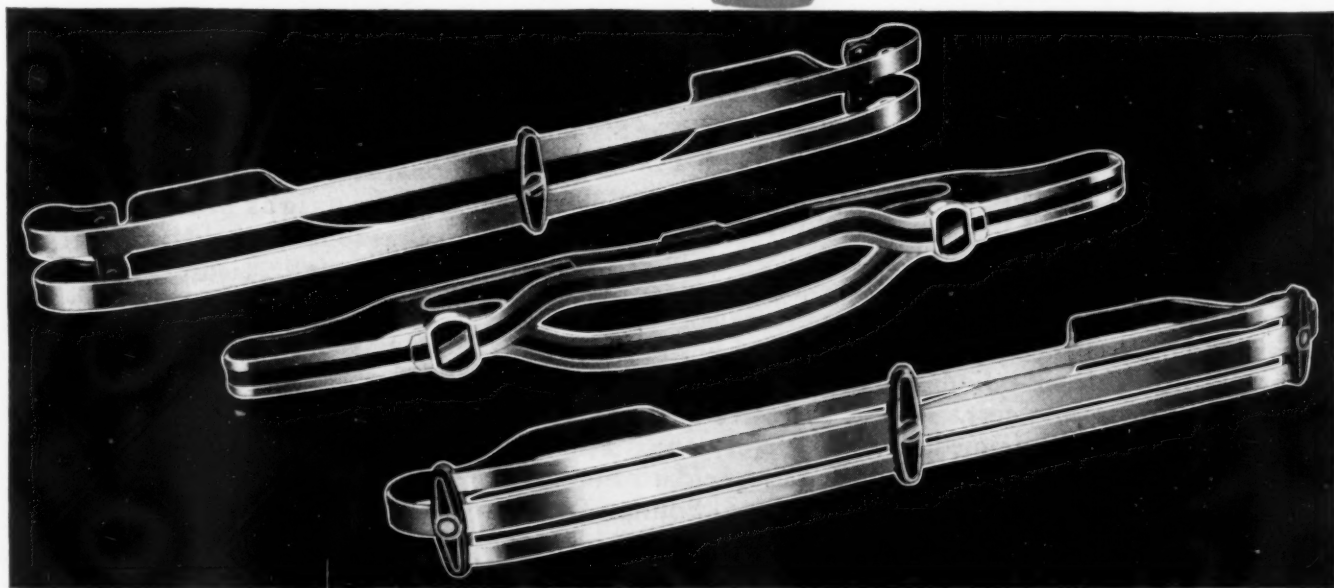
tion. You know Biflex quality—so do your customers. Biflex and Halladay Bumpers are a distinct benefit to you in making car sales. Biflex Bumpers are nationally known, nationally distributed and nationally advertised. They are sold in a wide variety of styles and sizes at a wide range of retail prices. And best of all a wonderful new improvement in bumpers is embodied in the latest Biflex models.

You will be doubly interested in Biflex now, because of the more attractive profits made possible through improved and revolutionary manufacturing methods. If you are not already acquainted with the Biflex proposition write or wire for complete information today.

**THE BIFLEX CORPORATION
WAUKEGAN • ILLINOIS**



dealer-from
will want
Biflex
Bumpers



Biflex *Cushion
Bumpers*

Now every largest to smallest

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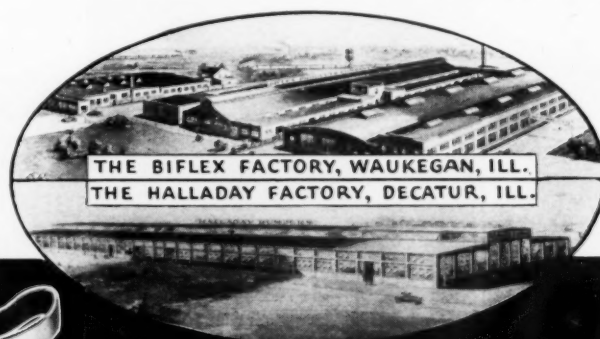
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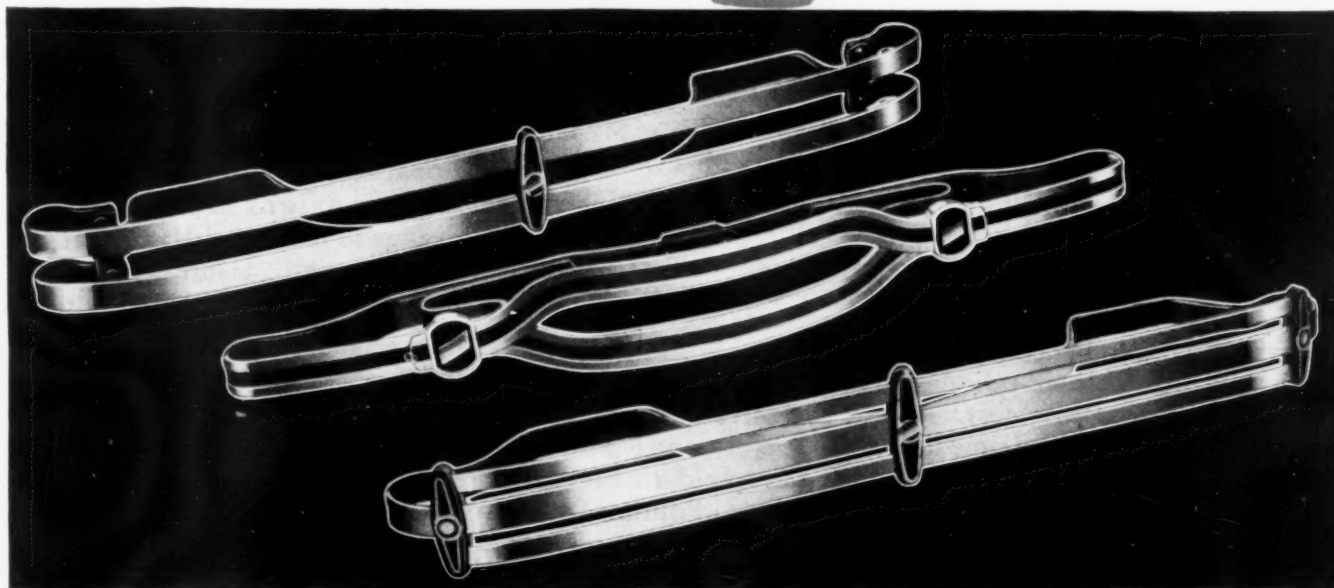
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THE BIFLEX CORPORATION
WAUKEGAN • ILLINOIS

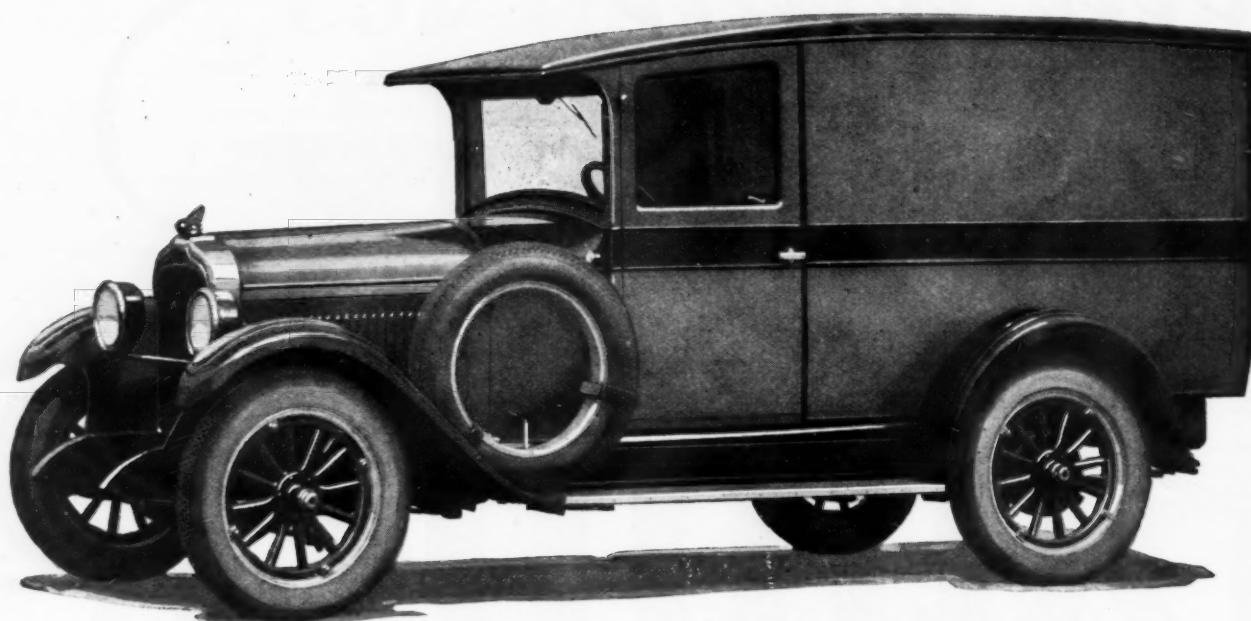


dealer-from
will want
Biflex
Bumpers



Biflex *Cushion
Bumpers*

Now—another source of profit is open to Oakland-Pontiac Dealers



The Pontiac Six DeLuxe Delivery, Panel Body Type, \$770 at factory, body included. Also available in screen type, \$760 at factory, body included.

INTRODUCTION of the Pontiac Six DeLuxe Delivery has opened a new field for sales to the man who holds the Oakland-Pontiac Double-Profit Franchise . . . In the enthusiastic reception accorded the De Luxe Delivery, the Oakland Motor Car Company found conclusive proof that the business world has long needed and wanted dependable six-cylinder transportation at low cost. A wide variety of trades immediately accepted the Panel Body Type for their delivery service and the success of the Pontiac Six for commercial purposes was at once established. Then Oakland added the Screen Body

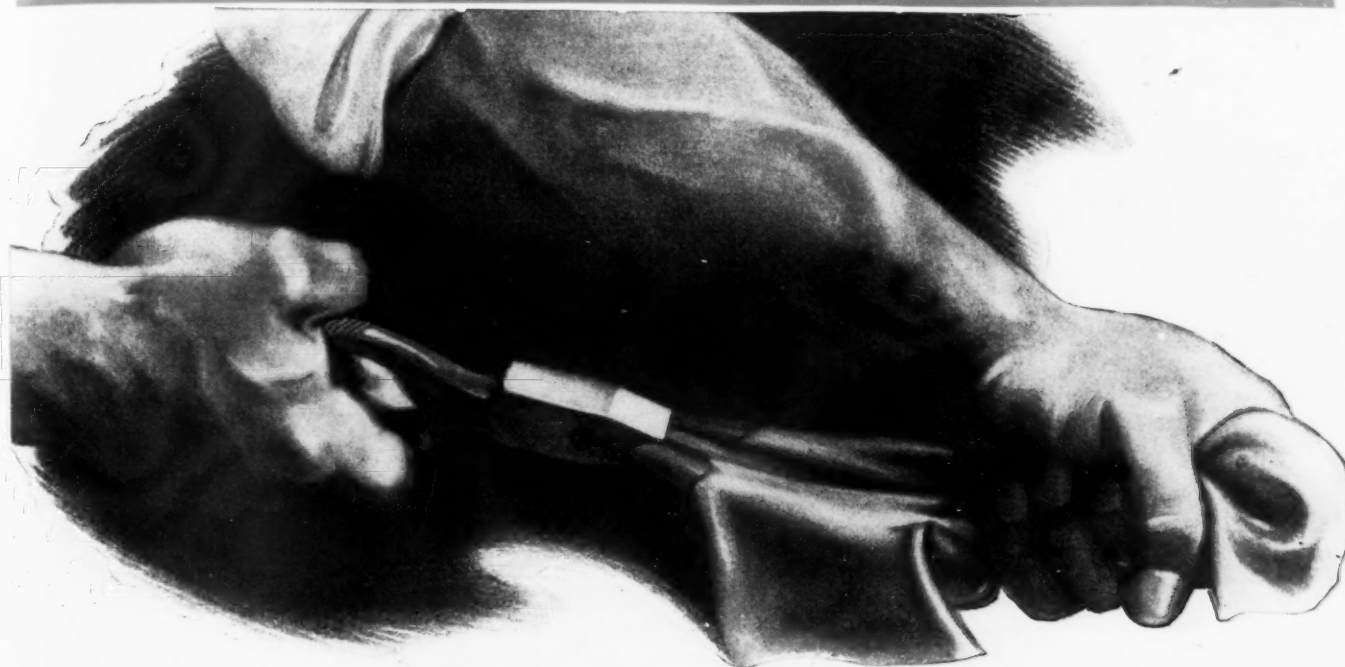
type, further broadening the market for its dealers . . . Both types are "keyed to traffic" by the famous Pontiac Six engine. They originate a new order of commercial car appearance with their low, rakish lines and brilliant Duco finish. Low first cost, low operating cost and low maintenance cost effect savings which good business demands. And because of these unique and exclusive qualities, the De Luxe Delivery opens a new and fertile sales field to holders of the Oakland-Pontiac Double-Profit Franchise . . . This is one more example of what Oakland does for the man who holds the Double-Profit Franchise—one

more source of profit under the Oakland selling agreement. Complete plans for retail sales and aggressive national, vocational and direct-mail advertising campaigns aid Oakland dealers to make the most of this opportunity . . . Just as Oakland achieved leadership in the field of popular-priced six-cylinder passenger cars, so it is headed for a topmost position with the Pontiac Six DeLuxe Delivery . . . If you are interested in this and other advantages of the Double-Profit Franchise, write for full information. Priority of application counts, so write Department C today!



OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

Can't GET IT OFF!



The Shaler Patch— Improved for Balloon Tires

Two years ago Shaler chemists, working with the experimental departments of two of the largest tire manufacturers, began to perfect Shaler Patch-&-Heat Units to stand the tough service of constantly-flexing Balloon Tires. They finally developed a new rubber compound of far greater adhesiveness and double the tensile strength that had been necessary for high pressure tires—and a new fuel adapted to cure it perfectly.

MAKE THIS TEST

Take your pliers and try to loosen the Improved Shaler Patch. It can't be done without tearing pieces out of the tube.

It's a fine demonstration to make to a customer who doesn't know the difference between VULCANIZING and sticking patches on.



**"Hot on the Job After
Punctures"**

For six months we have been delivering these improved patches to the trade. Millions of repairs have been made with them. They have stood up in balloon tire service as no patch ever did before. Even when another puncture flattens the tire and the old patch is dragged and pounded and scraped around inside of the casing—the Shaler Patch still sticks.

It was designed exactly for such service and besides, it was VULCANIZED (welded with heat) before it ever went into the casing.

Yet with all this remarkable ability to stick on the job, the Shaler remains the easiest and quickest way to fix a puncture when you have to.

This improvement will soon be announced to the public in The Saturday Evening Post, Liberty, and many other magazines your customers read.

Ask your jobber's salesman to tell you about the increased discount on Shaler Vulcanizers. Place your stock order now, and get display material to help you get the good from all this advertising.

THE SHALER COMPANY, Waupun, Wis., U. S. A.



Extra Resources—Extra Responsibility

More than one million automobiles yearly are factory-equipped with Carter carburetors. This great fleet travels billions of miles, on a minimum of fuel, with uniform smoothness, economy, *and brilliance*.

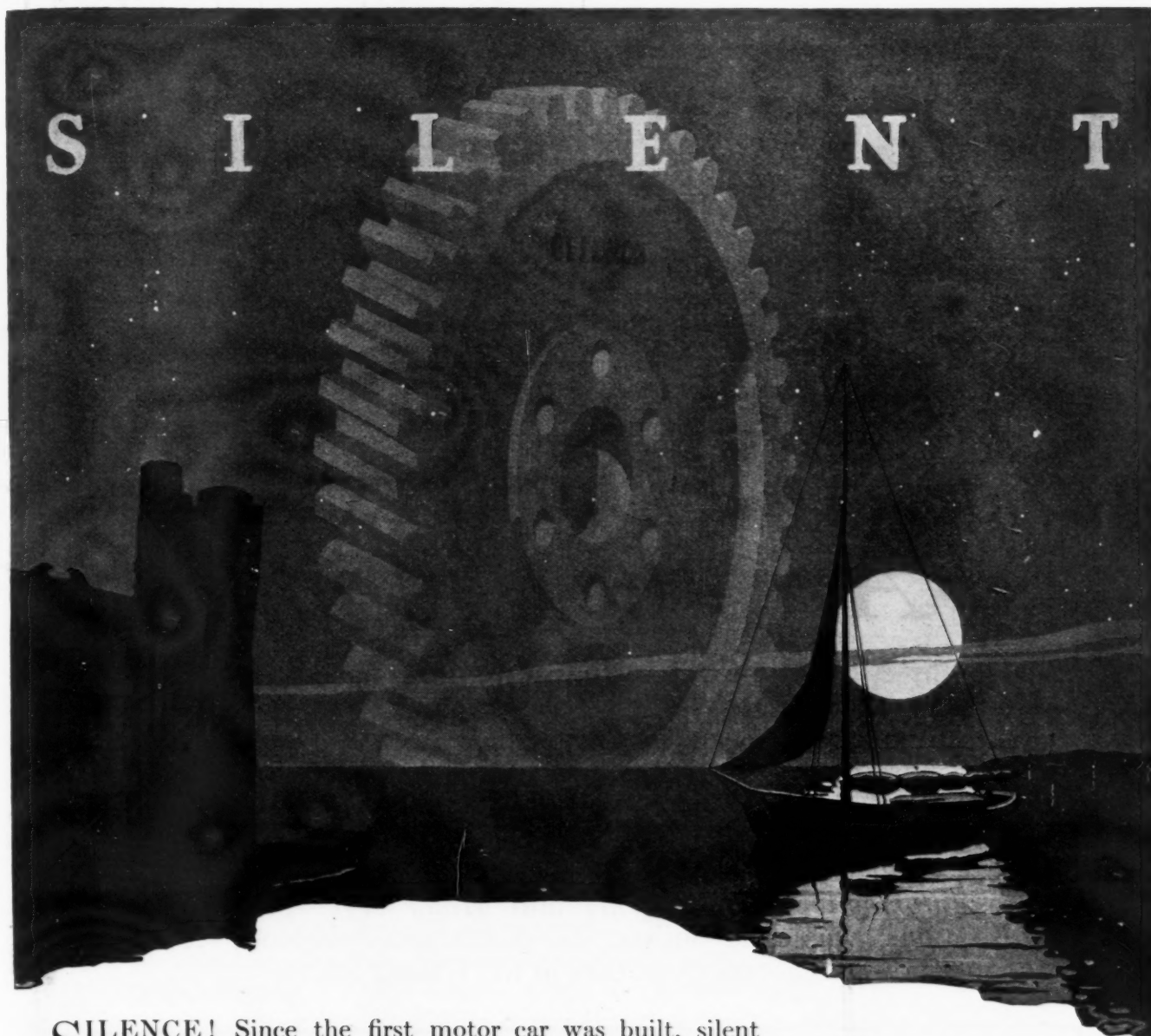
Carter popularity begins with the "production-proof" plain-tube principle, assuring unvarying accuracy. Carter precision methods are appropriate to the manufacture of a truly scientific instrument. Carter inspection

routine is seemingly excessive, but even the things that "might make no difference" rarely escape.

And Carter carries that same spirit out into the field with direct, personal, broad-gauge dealer co-operation, to assure more sales and greater good will from the use of Carter carburetors. They benefit by the resources and responsibility of the Carter parent institution — American Car and Foundry Company.

CARTER CARBURETOR CORPORATION, SAINT LOUIS

CARBURETER



SILENCE! Since the first motor car was built, silent operation has been the ideal of the industry, an accepted mark of aristocracy in motordom.

The silence of Celoron Timing Gears endures through thousands, even hundreds of thousands of miles. It is this quality, above all others, which has won them the preference in cars already numbered by millions.

Other millions of front-ends will be Celoron-equipped by repair shops and service men who have an eye to the increased profits that come with added customer good-will and the saving of installation time and labor. Ample stocks of Celoron Silent Timing Gears, maintained by N. A. P. A. distributors and jobbers at convenient points all over the country, ensure prompt deliveries.

The Celoron Company, Division of Diamond State Fibre Company, Bridgeport, Pa.
In Canada: 235 Carlaw Avenue, Toronto
Laminated Products, Moulding Powders and Varnishes

*Celoron Timing Gears
Have These Distinct
Advantages*

- 1—Non-metallic; eliminate metal-to-metal contact
- 2—Silent at all speeds
- 3—Stay silent permanently
- 4—Resilient; save every part of the timing mechanism from the effects of vibration and shock
- 5—Prolong the life of shaft bearings
- 6—Accurately cut, they keep timing accurate
- 7—Maintain gas and oil economy
- 8—Prevent tear-downs
- 9—Grease-proof, oil-proof, water-proof
- 10—Will not warp nor swell

CELORON

TIMING GEARS

Successful Dealers Are the Automotive

These three great merchandising papers have substantially assisted in building the world's greatest industry by guiding the wholesale and retail dealers to better business and greater profits. Today, more than ever, they render a big, constructive service to both industry and trade.

The following tabulation shows how closely the circulations of these leading automotive business papers—*Motor World Wholesale*, *Automobile Trade Journal* and *Motor Age*—parallel car registrations, wholesale outlets, car dealer establishments, service stations and retail accessory outlets in the United States.

ZONES	WHOLESALE MARKET		Per Cent Distribution of Motor Vehicle Registrations	RETAIL MARKET			
	Per Cent Distribution of Wholesalers	Per Cent Distribution of <i>Motor World Wholesale</i> Circulation		Per Cent Distribution of Combined Circulation <i>Motor Age</i> and <i>Automobile Trade Journal</i>	Per Cent Distribution of Car Dealers	Per Cent Distribution of Service Stations and Repair Shops	Per Cent Distribution of Retail Accessory Outlets
New England	8.5%	7.7%	6.3%	7.1%	6.3%	6.8%	6.0%
Middle Atlantic	21.6%	23.5%	17.7%	20.0%	18.4%	18.3%	18.5%
South Atlantic	9.5%	10.5%	10.1%	6.7%	9.1%	8.7%	8.5%
East North Central	21.4%	25.6%	24.7%	29.5%	24.7%	24.1%	23.7%
East South Central	3.5%	4.4%	4.5%	2.2%	4.0%	3.7%	3.9%
West North Central	13.1%	15.8%	14.3%	16.9%	18.3%	16.9%	17.0%
West South Central	6.9%	4.8%	9.1%	5.8%	7.3%	8.4%	8.5%
Mountain	3.7%	2.3%	3.3%	3.2%	4.6%	4.2%	4.6%
Pacific	11.8%	5.4%	10.0%	8.6%	7.3%	8.9%	9.3%
United States	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

It is the function of these "mass salesmen" to call upon the wholesale and retail automotive distributors and dealers regularly. They carry the merchandising messages of the industry's leading



Industry's Greatest Asset

manufacturers to upwards of 80,000 wholesalers and retailers—coverage that is unique in thoroughness, economy and effectiveness.

It is significant that the dealers who have scored the greatest successes in every territory throughout the land are those who are the best students of merchandise and merchandising methods. These are the dealers who subscribe for, pay for and read Chilton Class Journal dealer publications—and who voluntarily renew their subscriptions year after year.

Successful dealers value the helpfulness of these outstanding publications. They know that week by week, and month by month, they are deriving a benefit that points the way and leads the way to better business methods and increased profits.

In addition to the publications listed below, which meet the specific needs of definite divisions of the automotive industry and trade, we maintain a Direct Mail division for those manufacturers who wish to link direct-by-mail with their other advertising effort. Industrial, wholesale and retail automotive lists—the most complete and accurate in existence—are available. Our Direct Mail service includes *everything from the idea to the post office.*

CHILTON CLASS JOURNAL CO.

PHILADELPHIA

NEW YORK

CHICAGO

CLEVELAND

DETROIT

INDIANAPOLIS

Publishers of:

Motor Age (weekly)
Automobile Trade Journal (monthly)
Chilton Catalog and Directory (quarterly)

Publishers of:

Automotive Industries (weekly)
Motor World Wholesale (monthly)
Automotive Industrial Red Book (quarterly)

Publishers of:

Commercial Car Journal (monthly)
Operation & Maintenance (monthly)
Chilton Tractor & Equip't J'n'l (monthly)

The advantages and facilities of this company are without parallel. We own our forests where is grown the pulp wood that feeds our mills wherein is manufactured the paper needed for the production of our various publications. We operate our own printing establishments, and sponsor editorial and news services which are all-inclusive. A chain of unsurpassed publishing facilities. "We make everything but the ink."

Evidence like this again proves the superiority of Genuine APEX

Old Bridge, N.J.
December 3, 1926

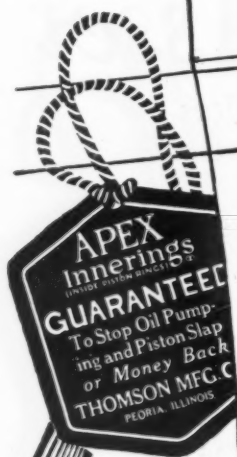
Thomson Manufacturing Co.
Peoria, Illinois

Gentlemen: -- Please send me the address of your nearest jobber. About three years ago I sent for and received the name of a firm in New York City (I have forgotten the name.) I bought a set for my Buick car, put them in, using the old piston rings and the results I obtained were almost unbelievable. From a powerless, piston slapping, oil pumping motor Genuine Apex Innerings changed it to a powerful, hard pulling, quiet engine.

For the next two years I used the car without any further labor on the motor. I then took the pistons out (for curiosity's sake) to see how the APEX Innerings were and found them as good as new. I bought new piston rings, put the old APEX Innerings back again and am still using the car (a 1918 model Buick.) The motor, with its original pistons and Genuine APEX Innerings, is outwearing the rest of the car.

I am an auto mechanic and during my spare time I do a lot of extra work. I went to a jobber to get Genuine APEX Innerings for another car but he didn't have any in stock. He offered me a different brand of Innerings (A.P.E.X.) supposed to be just as good as Genuine APEX. I put them in the car and in about three months the man came back with the motor knocking as badly as ever. I thought I would write to you to find out where I can get Genuine APEX Innerings.

(Name may be had on request.)



You don't have to accept a substitute for Genuine APEX Innerings. Good jobbers who want to hold your trade will stock, or get APEX for you. There is an APEX jobber near you. If you don't know who it is, order

direct. We will ship to you and bill through your regular jobber or our nearest APEX Innering jobber. Get Genuine APEX Innerings and eliminate the come-backs.

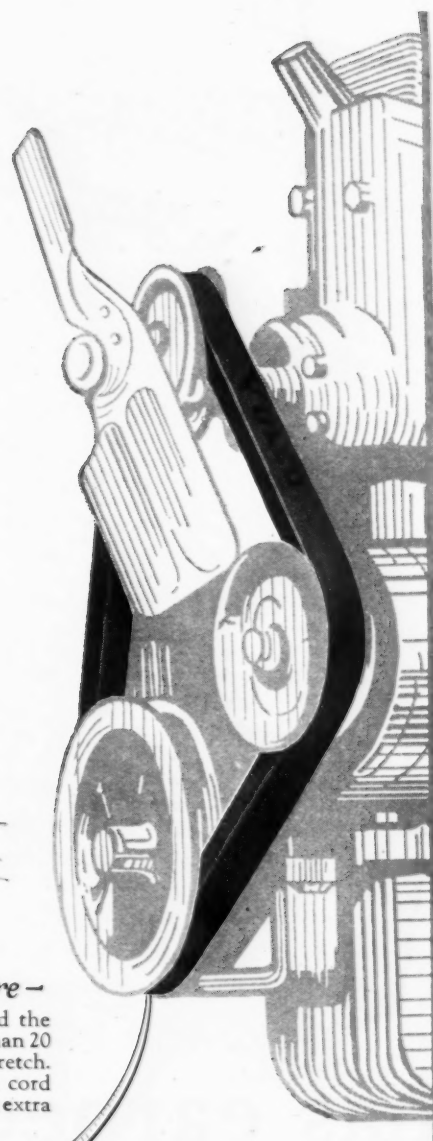
THOMSON MFG. CO.,

Dept. 21

PEORIA, ILLINOIS

APEX GENUINE INNERINGS

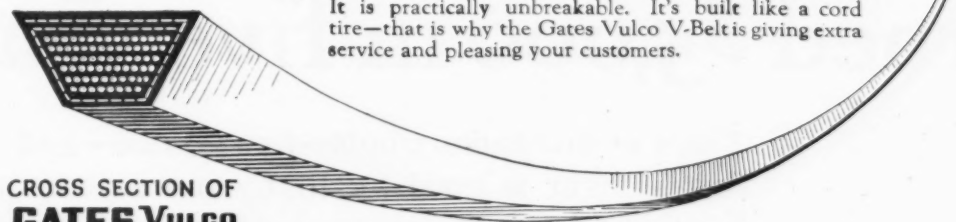
If it isn't an APEX—it isn't an Innering



THE "V" BELT

That is built like a cord tire—

60 to 80 strong endless cords run clear around the Gates Vulco V-Belt—each cord tested to more than 20 lbs. strength. No wonder that this belt is non-stretch. It is practically unbreakable. It's built like a cord tire—that is why the Gates Vulco V-Belt is giving extra service and pleasing your customers.



CROSS SECTION OF
GATES VULCO
MOULDED "V" BELT

More than 100,000 dealers all over the U. S. are recommending the Gates Vulco V-Belt. They have learned that this V-Belt gives real service—and that is what builds a really profitable business for them.

GATES VULCO BELTS

"The Standardized Fan Belt"

"Manufactured by the World's Largest Makers of Fan Belts"

Morris Jones, Inc.
Lincoln-Ford-Fordson
Overbrook, Pa.

5134 Lancaster Avenue,
October 23, 1926.

General Electric Company,
Bridgeport,
Connecticut.

Gentlemen:

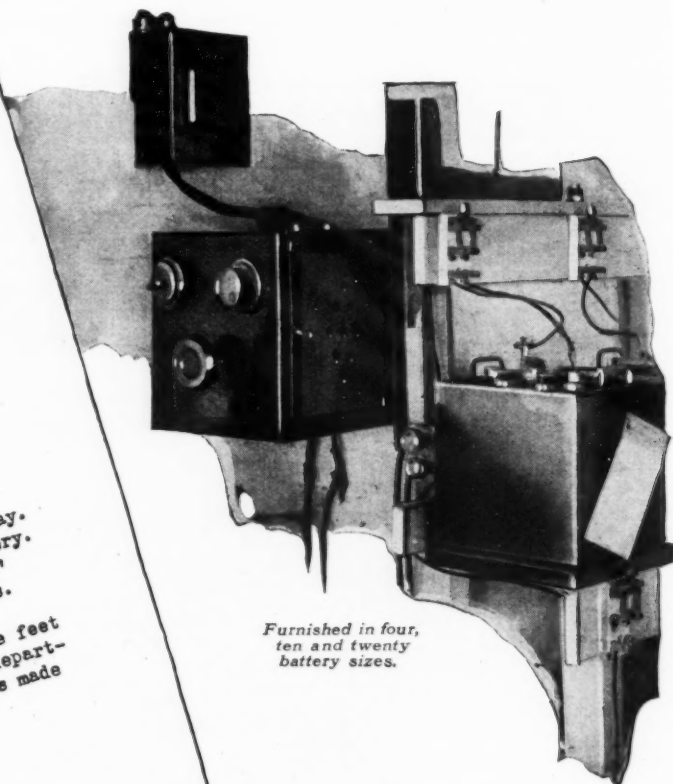
We had about five feet of wall space that was absolutely useless to us so we decided to install a G-E Tungar Battery Charger. We purchased a ten-battery Tungar about five years ago — and we have used in 365 days a year ever since.

We recharge an average of five batteries a day. We figure our recharging costs at \$.08 $\frac{1}{2}$ per battery. Our only expense on this charger, for five years' service, has been the replacement of three bulbs.

So you see we have turned the useless five feet of wall space into one of the largest profit departments in our business. This charging unit has made us a profit of over \$5,000 in five years.

Yours sincerely,

John Weaver
Weaver Jones, Inc.



Furnished in four,
ten and twenty
battery sizes.

One G-E Tungar has earned \$5,000 in five years

Years of profitable, trouble-free service—and this Tungar is good for many more years. Read the letter the owner writes about it—only one letter out of hundreds we have received from satisfied Tungar users.

Write for the booklet
that shows the profit
possibilities of the Tungar.

Merchandise Department,
General Electric Company
Bridgeport, Connecticut



HEAVY DUTY
Tungar
REG. U.S. PAT. OFF.
BATTERY CHARGER

Tungar—a registered trademark—is found only
on the genuine. Look for it on the name plate.

GENERAL ELECTRIC



There is only ONE Duco
—DU PONT Duco



One doubt may kill the sale

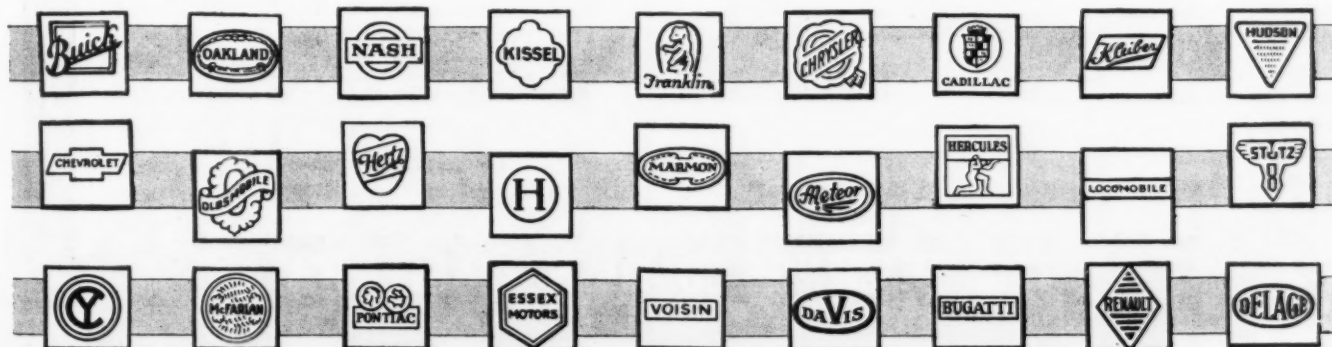
WHEN a salesman is forced to say, "This car has a finish as good as DUCO," or "It is DUCO type," a doubt is born in the prospect's mind. And dealers know one doubt may kill a sale.

The men and women in America know DUCO. They like it. They **know** there has never been a finish able to withstand so well the effects of wear and weather. Many things in their homes are finished with DUCO, furniture, and refrigerators—dozens of other articles!

DUCO costs no more, but DUCO alone can give the sales-asset value, the conviction of equality, the confidence, that DUCO creates.

E. I. du Pont de Nemours & Co., Inc.,
Chemical Products Division, Parlin,
N. J., Detroit, Mich., Flint, Mich.,
Chicago, Ill., San Francisco, Cal.,
Everett, Mass., or Flint Paint and Var-
nish Limited, Toronto, Canada.

DU PONT



Rie Nie

Trade Mark Reg.

FAN BELTS



VEE ROUND



FLAT TYPE

Fits any Grooved Pulley, wedging itself tightly and firmly into the groove regardless of the angle of pitch. Their construction insures reliable service, always. It is oil, heat and waterproof, with a sureness of grip that guarantees dependable performance. Self-adjusting! Fewer sizes to carry, insuring quicker turnover.

THE LARGE SALES—to motorists, dealers and jobbers of Rie Nie Fan Belts and other distinctive Rie Nie Products is an inevitable result when products are made right, priced right, and deliver genuine service over a period of years.

Rie Nie Fan Belts sell easily and quickly because the motorist knows from experience that they are good products—made by a company financially responsible and whose reputation for quality has been established through years of experience, since 1910.

Priced reasonably—like all Rie Nie Quality Products, and a generous margin of profit to dealer and jobber. Popular price plus profits. *Specialize on Rie Nie Fan Belts.*


*If your jobber cannot supply you,
write direct to us—now!*

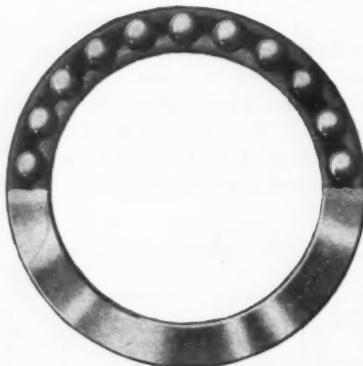
DURKEE-ATWOOD®
MINNEAPOLIS, U.S.A.

Manufacturers of
Quality Automotive Products that **SELL** since 1910


Is made for Regular or Crowned Pulleys—and will exactly fit the car for which it is designed. Fabric is cut on bias. Herculean strength! Vulcanized in a special cover jacket which prevents ply separation. Durable! Sure Grip! No slipping. A true Rie Nie Product—in every sense of the word.

"The Right Bearing" for Every Car





Thrust Bearing



Why B. C. A. Bearings?

B. C. A. Bearings have been selected by leading automobile manufacturers for these reasons:

- By their scientific design, wear is reduced to a minimum.
- Whether one thousand or one hundred thousand are ordered, every Bearing runs uniform in dimensions.
- Because of their accuracy they are easy to install.
- They will carry the load and take the thrust for which they are designed with ample margin of safety.

May we show you where you can use B. C. A. Ball Bearings to advantage?

Detroit, Michigan, Office
1012 Ford Bldg.

THE BEARINGS COMPANY of AMERICA
LANCASTER, PA.

CURTIS COMPRESSORS, HOISTS, CRANES, CAR WASH SYSTEMS, PORTABLE COMPRESSOR UNITS



Time Saved!

In the War they used to have an expression, "The visibility is good". The Curtis Air Lift increases "visibility". The ease with which the washer can reach the dirty part of the car, and can see what he is doing, makes a great difference in the speed of getting out the cars.

This, with the Curtis Air-Mist Car Wash System, makes a great profit-paying combination. The spray from the Air-Mist reaches into otherwise inaccessible or neglected places. With a Curtis Air-Mist System, and a Curtis Air Lift for the wash rack, you can wash many times faster and better than with other systems.

Owners of wash racks can greatly increase their incomes, while operators of fleets can save time, facilitate inspection and reduce costs.

At the same time the Curtis Air-Mist System is not only a washing system but also a complete cleaning service for the inside as well as the outside of the car. The Air-Mist provides air for tire inflation, for drying, polish spraying, paint spraying, vacuum cleaning and engine washing. You get more revenue without additional customers.



The World Rides on Curtis Air

The Air-Mist System is built and guaranteed by the makers of the famous Curtis Compressor, which is more widely used for tire inflation throughout the world than any other compressor. Most of the nearly 25 million car owners in Europe, Asia, Africa, Australia and the Americas "ride on Curtis air."

Likewise, compressed air for rock drilling, pavement breaking, materials handling, paint spraying and scores of other uses in factory and field is supplied by Curtis Compressors.

The Curtis Pneumatic Machinery Company is 73 years old and for 30 years has specialized in pneumatic engineering and high grade compressor manufacturing. Wherever compressed air will do the job better, Curtis can help you.

MAIL COUPON TODAY
CURTIS Pneumatic Machinery Co.
1957 Kienlen Ave., ST. LOUIS, MO.
518-U Hudson Terminal, New York City
Gentlemen:
Please send me, without obligation, your new free
AIR-MIST catalogue.

Name

Address

City

State



CURTIS AIR-MIST CAR-WASH SYSTEM with Westco water amplifier

CURTIS PNEUMATIC MACHINERY COMPANY, ST. LOUIS, U.S.A.

SIMPLEX Piston Rings

Simplex Piston Rings supersede all other methods of rebuilding cylinders and pistons.

GUARANTEED 10,000 MILES
against Oil Pumping, Piston Slap and
Compression Loss

Send for details of this short cut scientific method of reconditioning ALL cylinders, no matter how worn, tapered, out of round or heat distorted.

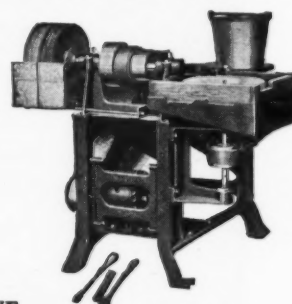
THE SIMPLEX PISTON RING COMPANY
of America, Incorporated
1971 East 66th Street, Cleveland, Ohio

FAST AUTO GLASS EDGING

GRINDS
SMOOTHS
AND
POLISHES
EDGES OF
AUTO GLASS

Write today—Dept. K
MAKE THESE EXTRA PROFITS

HENRY G. LANGE MACHINE WORKS
DEPENDABLE SINCE 1882



160 N. MAY ST.
CHICAGO

KEYSTONE
Gear-Shift
EXTENSION LEVER

\$1.00
Lever
Only



Ball and
Lever
Lock

Lever
Only
\$1.00
Ball
Only
\$2.00

KEYSTONE GEAR SHIFT
Extension Levers and Genuine Onyx Balls are made in sizes for all cars. Balls are of beautifully colored Genuine Onyx, all with selected markings. Levers are heavily nickled metal, with set-screw lock. Sold either as a unit or individual part.

THE NORLIPP CO.
568 West Congress Street
CHICAGO, ILL.

KEYSTONE
SELF-LOCKING
RADIATOR CAPS

R.I.V. Means Quality
in Every Language



250 West 57th St.

New York City

The Burgan Cotter Pin Extractor

Works Like Magic

It goes in anywhere, grips the cotter pin—snaps it out in a jiffy—holds it until released. You don't have to pull or twist. Just squeeze the handles. It's a great tool!

Write for prices and details

THE BURGAN CORPORATION
9 So. Clinton St.

Chicago, Ill.

New DOVER FLEXP SERVICE CAN



In 2 capacities: 2 and 5-gal. Prices \$3.50 and \$5.

Saves Your Time

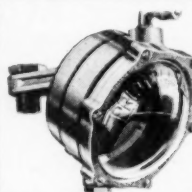
The New Dover Flexo Service can speeds up sales, and makes your time productive.

Customers like the service it gives because it is clean as well as quick and convenient for you. Flexible pouring tube stores away inside can when not in use.

Dover Stamping & Mfg. Co.

385 Putman Ave.

Cambridge, A, Mass.

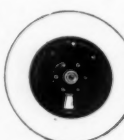


PROTEX-A-MOTOR GASOLINE PURIFIER

Protects the Entire Gasoline System

It puts gas through a triple separation from its impurities by straining—by filtration—and in addition by gravity. Installed between gas tank and vacuum. Set on self-cleaning 60° angle. Absolutely LEAK-PROOF! Investigate!

PROTEX-A-MOTOR MANUFACTURING CO.
Pittston, Penna.



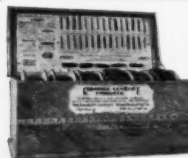
Every year more motorists
are saying...

Goodbye, buggy wheels **BUDD**
WHEEL COMPANY
Philadelphia • Detroit

**INSURES A
TOW HOME**

**BASLINE
AUTOWLINE**

B-196



GOODRICH-LENHART CABLE KIT

Displays six starting, lighting, ignition, and radio cables. Puts them right where they sell with little effort. On spools—no loose ends. Also displays actual samples of full G-L line.

Kits are supplied through all G-L Jobbers. Write for price and name of nearest jobber!

Goodrich-Lenhart Mfg. Co.

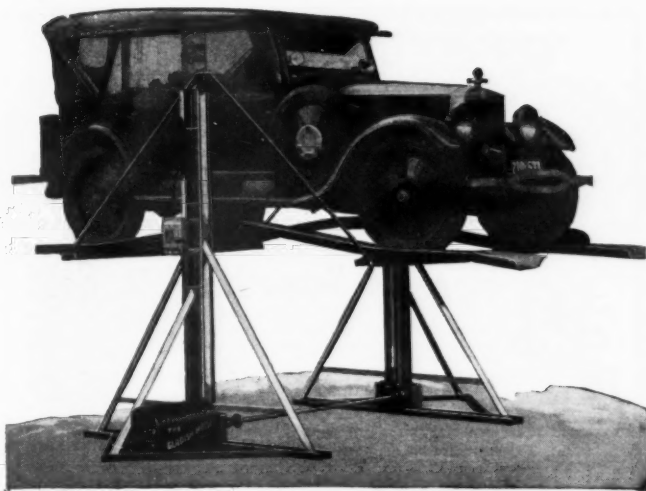
Hamburg, Penna.



QUALITY—PROFIT—TURNOVER

**American
Hammered
Piston Rings**

Baltimore, Maryland
American Hammered Piston Ring Company



5 foot Lift in 2 minutes

The Gladish Hoist

This is the most efficient hoist ever manufactured. No installing expense. No pits to dig and concrete. No expensive runways to build. No center braces or supports to hinder the operator. Absolutely safe. A child can operate it.

Note: Let us give you complete information on this hoist. There is no obligation on your part.

The American Hoist Corp.

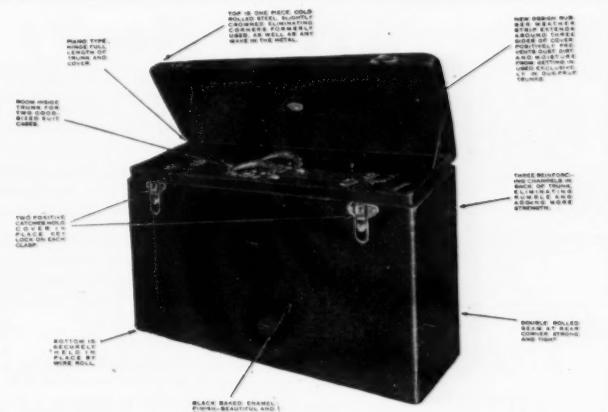
2420 East 14th St., Department 1
Chattanooga, Tenn.

In the next issue of

MOTOR AGE

there may be a new
idea that will mean
many dollars of
profit to you . .

Don't miss it!



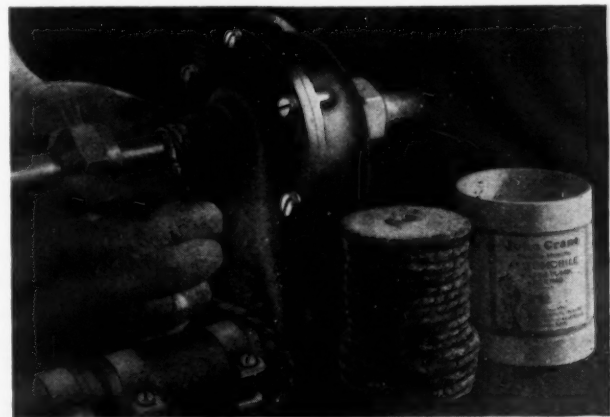
You Make Money with DUS-PRUF Metal Trunks

You make it because of liberal discounts, good sales and quick turn-over—resulting from a complete line of all steel trunks that owners want to buy.

There are a great many details to amplify this statement. Ask us for them. They are worth money to you.

Dus-Pruf Metal Trunk Co.
414 W. Jefferson Ave. Detroit

"John Crane" Metallic "The Pump Packing the Motor Builders Use"



One Size for ALL Pumps

Embodies exact principles of "John Crane" Packing supplied in modern cars, but in one universal replacement style. Keeps pumps tight, shafts smooth. Saves non-freezing mixtures. Order from jobber or direct. Makes repacking worth more money.

Crane Packing Company

1805 Cuyler Avenue,
Gentlemen: Chicago

109 Broad Street,
New York

Send.....spools, Style 112, garage size (sufficient for 20 pump packing boxes) C.O.D. \$2.50 Net.

Name.....

Address.....

Arrow Head



Arrow Head's

most complete and flexible up-to-date line of pistons and pins assures quick service on the 4000 most-called-for fits and applications, including practically "all motors, all years, all models."

Arrow Head Steel Products Company
Buffalo Minneapolis, Minn. Chicago

A
**COMPLETE
STOCK**

of AUTO PARTS and ACCESSORIES

5-Day Money Back Guarantee
Repossessed Used Cars
Write for Low Prices

UNITED AUTO WRECKERS
2429 S. State St. Established 1916 Chicago



Valve Face Grinding Machine

—with the NEW Sioux Roller Chucking System. Amazing accuracy and speed. Investigate before you buy.

Your Jobber Sells It

ALBERTSON & CO.
SIOUX CITY, IA.

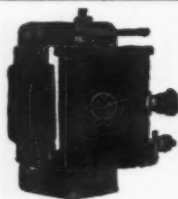
LINCOLN BALLOON SHOCK ABSORBERS

For All Cars—\$15 to \$40 Per Set of Four
LINCOLN PRODUCTS COMPANY, 2649 N. Kildare Ave., Chicago, Ill.

EATON BUMPERS



BEAUTIFUL — Quick Sellers — Easily Installed
The Eaton Bumper & Spring Service Co., Cleveland, O.



Mallory Ignition Coil

Has two primary windings instead of one. Gives a hotter spark, makes easier starting, gives more power, quicker pickup and more mileage. Try it on a sluggish motor. Write for full particulars.

The Mallory Electric Corporation
Toledo, Ohio



Let us
send our
profit-
boosting
plan.
It's Free.

THE LARKIN AUTOMOTIVE PARTS CO.

DAYTON, OHIO, U.S.A.

TASCO
Gas Gauge for
FORD
CHEVROLET
OVERLAND
and STAR



Sells Quick at \$1.25 Retail.
Types "K" and "J" for 1926
Chevrolets and all
Stars Sell at \$1.50

THE AKRON-SELLE CO.
Akron, Ohio

WEIDENHOFF

Shop Equipment
for Battery and Electrical Service
4358 Roosevelt Road, Chicago, Ill.



Here Is Something to Sell!

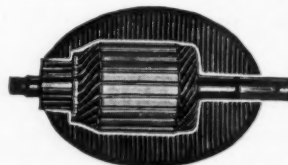
A piston ring, on the principle of a packing ring, that gives remarkable results in service, is used in thousands by automobile factory branches for replacement—and pays a profit worth while. WRITE FOR DETAILS.

THE CORK-SEALED PISTON RING CORP.

2332 Michigan Avenue, Chicago

Factory: Denver, Colo.

Canadian Distributors: Purser, Bull & Co., Ltd.
Toronto, Canada



FREDERICKS Rewinding Service

New Rewind Profits—See announcement every 4th week. Write now for price list. The H. M. Fredericks Co., Lock Haven, Pa.

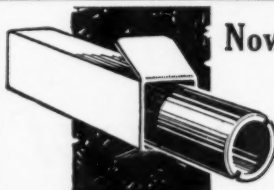
free
write for
your copy

The Book "AIR PROFITS"

Shows how to get more work out of an air compressor. How to use compressed air for many pay jobs.

BRUNNER MFG. CO.
UTICA NEW YORK

BRUNNER
AIR COMPRESSORS



Now--5 Different Oversizes

to every standard size and type of Piston Pin—in stock, waiting for your telegraphic order.

THOMPSON
PISTON PINS

Defiance

Ohio

WESCO TIRE CHAINS

"They Stand the Gaff"

Simplicity

REG. U.S. PAT. OFF.

REBORER AND GRINDER

A big money-maker in any automobile repair shop or garage. Ask for free demonstration in your own shop.

SIMPLICITY MANUFACTURING COMPANY
Port Washington Wisconsin

WEL-EVER

"OIL CONTROL" PISTON RINGS

The Motor Necessity That Has Made Good
Backed by Seven Years' Satisfactory Service

THE WEL-EVER PISTON RING CO., TOLEDO, OHIO
Sold most everywhere. If your dealer cannot supply you write us.

WE MAKE RADIATOR CORE MACHINERY

Write for Catalog & Prices

RADIATOR ENGINEERING CO.
 FACTORIES BLDG. TOLEDO, OHIO



**Stops Pump Shaft Leaks
and Saves the Winter Solution**
 Conneaut Plastic Metallic Packing molds in the fingers to fit stuffing-boxes of any size or shape. It is a repair for the worn shaft and loose bushing. At your jobbers; if not write us.
 1 lb. can \$1.75 per pound
 5 lb. can \$1.60 per pound
THE CONNEAUT PACKING CO.
 Conneaut, Ohio

WIRE OR WRITE US FOR NEW OR USED TIRES — PARTS — ACCESSORIES

IF IT'S FOR AN AUTOMOBILE WE HAVE IT!
 SEE OUR NEXT DISPLAY IN MOTOR AGE MARCH 3
STATE AUTO PARTS CORPORATION
 2011-13-15 S. State St., Chicago, Ill.



UNITED STATES Portable Electric DRILLS

Built by the oldest makers of Portable Electric Drills in the World.

Ask for
Catalog
105

THE UNITED STATES ELECTRICAL TOOL CO.
 Cincinnati, Ohio, U. S. A.

RADIATOR CAPS



ORNAMENTS

Confidence in a product that has been produced with scrupulous attention to detail is born only of experience. Our clients know they receive only the finest in material and artistry.

FAITH MFG. CO., Inc. 2533-39 N. Ashland Ave., Chicago, Ill.

Bigler BETTER BUILT MOTOR TRUNKS

Motor Trunks, Racks and Equipment exclusively. All types and styles. Genuine Duco finish, or bright black. A money-making line. Write.

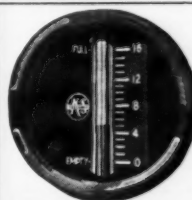
BIGLER MANUFACTURING CO.
 CHIPPEWA FALLS High St. WISCONSIN



Red Wing Suspension For Fords

Improves the riding and handling qualities of Fords, and permits greater speed with safety. Absolutely unbreakable. 30-minute installation. Money-back guarantee. Liberal profits. Write.

RED WING COMPANY
 612 N. Michigan Ave. Chicago



K-S GASOLINE Telegage

A gasoline gauge on the Dash. Note our half-page advertisement in the Saturday Evening Post, March 5th. Write for description and proposition to the trade.

KING-SEELEY CORPORATION
 298 Second Street Ann Arbor, Michigan
 Chicago Branch, 2450 Michigan Boulevard

LYCOMING Motors

Fine Fours, Sixes and Eights-in-Line

LYCOMING MANUFACTURING COMPANY, Williamsport, Pa.

Years Ahead in Automobile Motor Efficiency

B U R D

TURNED — QUICK SEATING — OIL
PISTON RINGS

BURD HIGH COMPRESSION RING CO., ROCKFORD, ILL.

HALL HONE \$35.

Spring and Solid Pressure in one Hone
 at your Jobber's

Gilmer

Makers of
the world's
best known
fan belts..

L. H. GILMER & CO., Tacony, Philadelphia

CLASSIFIED ADVERTISING

BUSINESS OPPORTUNITIES

BUSINESS OPPORTUNITIES

PATENTS & PAT. ATTORNEYS

C. L. PARKER

Ex-Examiner U. S. Patent Office
 Attorney-at-Law and Solicitor of Patents
McGill Building, Washington, D. C.
 Patent, Trade Mark and Copyright Law

FOR SALE

Garfield Boulevard Automobile Row Corner, 98 by 100 ft. Four side entrances. Bargain. Dr. E. L. Derison, 17 W. Garfield Blvd., Chicago, Ill.

AUTOMOBILE SERVICE STATION. Prosperous town, Eastern Pennsylvania, 8000 population. 500 cars and not a single car dealer. Gross volume \$100,000 a year. Will sell for price of land and buildings and throw in stock, equipment and goodwill. Good reasons. Will require a minimum of \$15,000 cash. Box 6293, Motor Age, 5 S. Wabash Ave., Chicago, Ill.

BIDS will be received on all physical assets of the Automotive Trailer Corporation, Springfield, Illinois, until February 22nd, 1927. Includes a complete line of machinery, tools and material for building Automotive trailers; also, building 60x200. For further information write Wm. B. Jess, Reisch Bldg., Springfield, Ill.

FOR SALE

"Ford Owners Attention." "How to Drive a Gearshift Automobile." One dollar postpaid. Walter L. Dunn, 229 Peachtree Street, Atlanta, Ga.

For Sale—One Turn-Auto at a bargain, for all kinds of garage work. If interested write Graf Bros., Waterville, Ohio.

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Second Spare Tire Carriers for the lighter car. Fits any size demountable rim.

Second Spare Carriers for Every Car
Second spare tire carrier equipment for every make and model car regardless of rim or wheel equipment.

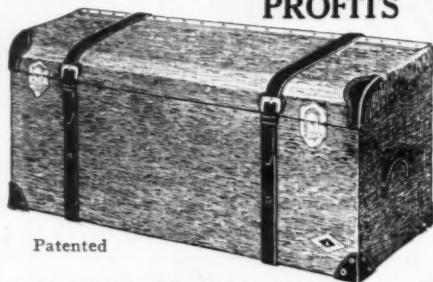
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for All Makes of Cars

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Automotive and Warehouse Division
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Chicago Factory Branch
WINKENWEDER & TAYLOR
1507 So. Michigan Ave.

Lorenz Trunks and Trunk Equipment Sold Through Jobbers Only.
Jobber Sheets Now Ready.

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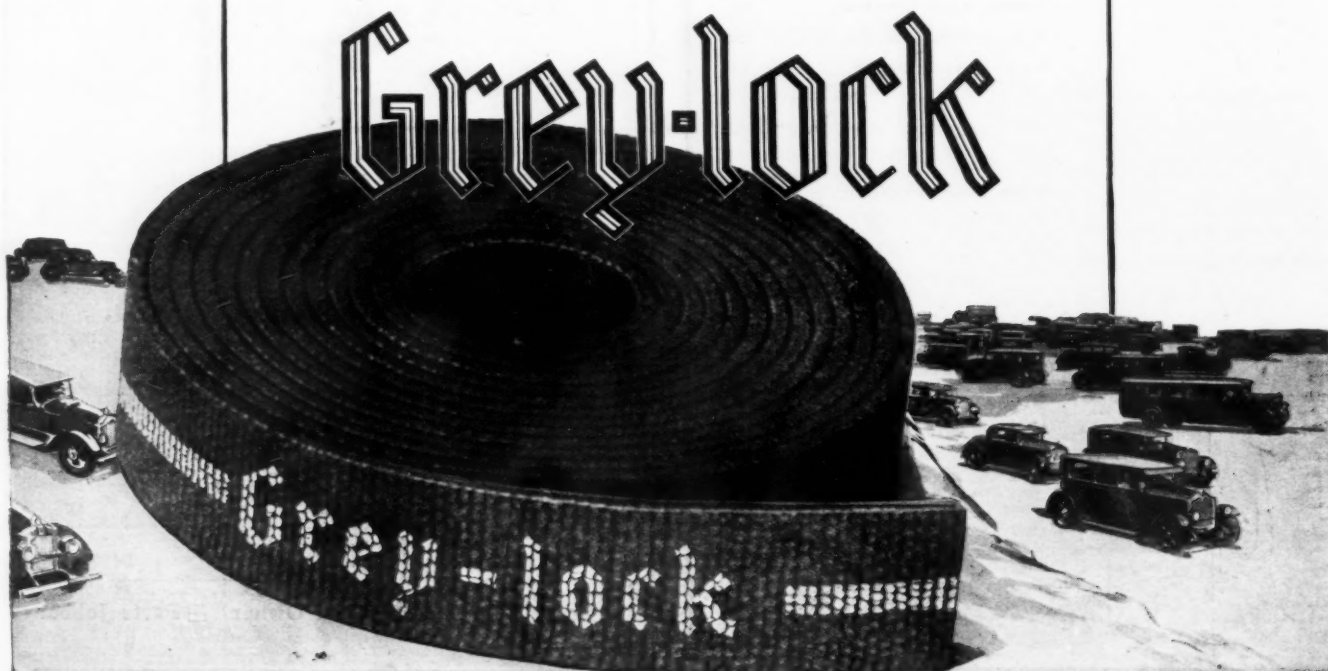
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